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IN THIS ISSUE

Purpose, Scope, and Method of the National Health Survey

A Description of Two New Species of Fleas (*Opisocrostis*)



FEDERAL SECURITY AGENCY
UNITED STATES PUBLIC HEALTH SERVICE

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It contains (1) current information regarding the prevalence and geographic distribution of communicable diseases in the United States, insofar as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other important communicable diseases throughout the world; (2) articles relating to the cause, prevention, and control of disease; (3) other pertinent information regarding sanitation and the conservation of the public health.

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(II)

CONTENTS

	Page
Prevalence of poliomyelitis.....	1663
The National Health Survey. Scope and method of the Nation-wide canvass of sickness in relation to its social and economic setting.....	1663
Two new species of <i>Opisocrostitis</i> (Siphonaptera).....	1687
Court decision on public health.....	1693
Deaths during week ended August 26, 1939:	
Deaths in a group of large cities in the United States.....	1694
Death claims reported by insurance companies.....	1694

PREVALENCE OF DISEASE

United States:

Current weekly State reports:

Reports for week ended September 2, 1939, with case rates and comparison with former years.....	1695
----------------------------------------------------------------------------------------------------	------

Rocky Mountain spotted fever:

Cases reported by States, February 26-September 9, 1939.....	1699
--------------------------------------------------------------	------

Summary of monthly reports from States.....	1700
---------------------------------------------	------

Weekly reports from cities:

City reports for week ended August 26, 1939.....	1701
--------------------------------------------------	------

Foreign reports:

Canada—Provinces—Communicable diseases—Week ended July 29, 1939.....	1705
-------------------------------------------------------------------------	------

Cuba—Provinces—Notifiable diseases—4 weeks ended June 24, 1939.....	1705
---------------------------------------------------------------------	------

Scotland—Vital statistics—Second quarter 1939.....	1706
----------------------------------------------------	------

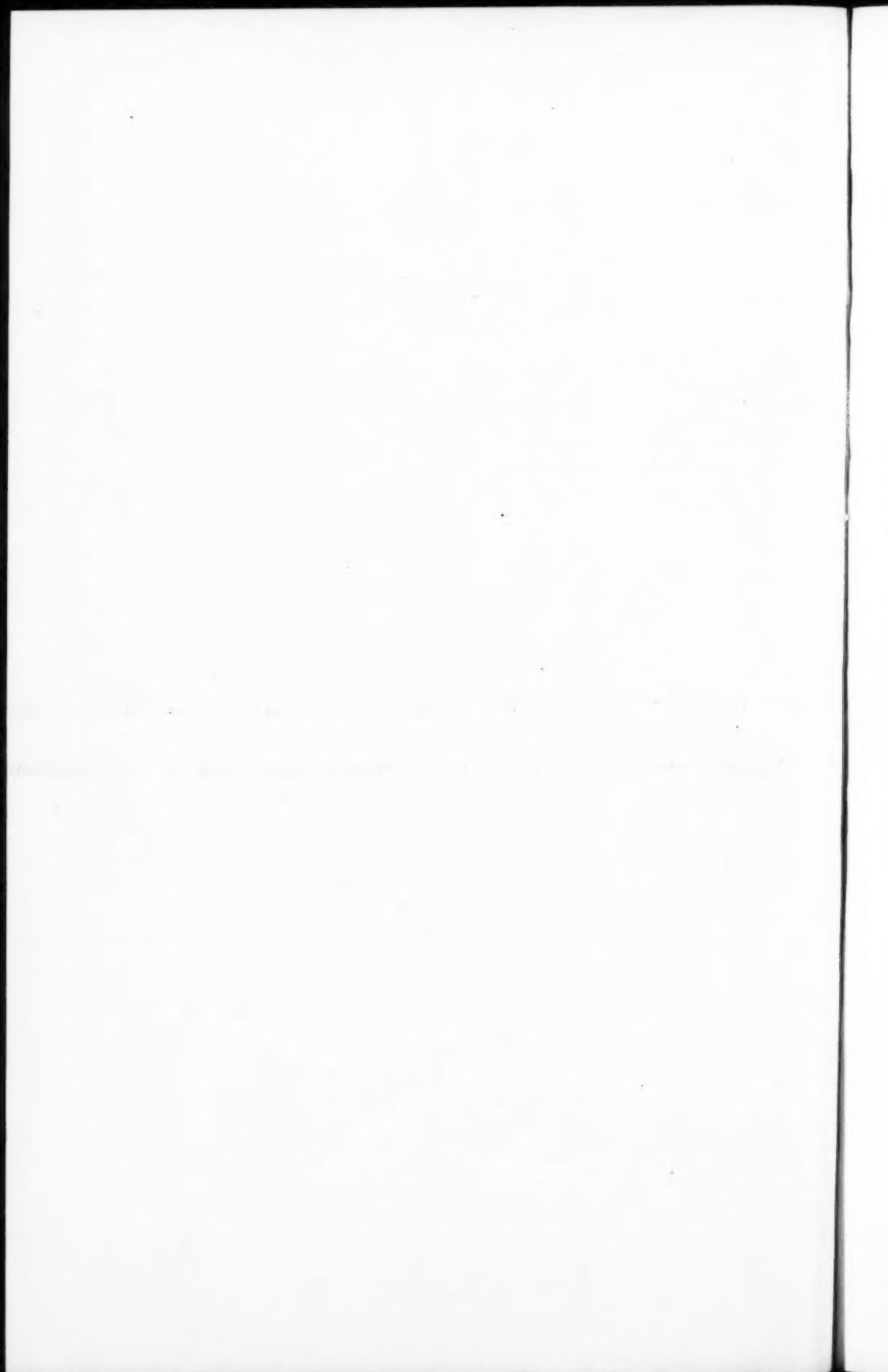
Reports of cholera, plague, smallpox, typhus fever, and yellow fever received during the current week—

Plague.....	1706
-------------	------

Smallpox.....	1706
---------------	------

Typhus fever.....	1707
-------------------	------

Yellow fever.....	1707
-------------------	------



Public Health Reports

Vol. 54 • SEPTEMBER 15, 1939 • No. 37

PREVALENCE OF POLIOMYELITIS

There were 436 cases of poliomyelitis reported in the United States during the week ended September 9, as compared with 479 cases during the preceding week and a median of 294 cases for the corresponding week of the years 1934-38. This is the first week this summer in which a decrease in the number of cases has been reported. In recent years the summer rise in the incidence of poliomyelitis has reached its peak by about the third week in September. If the current incidence follows the same pattern, a decrease in the number of cases may be expected within the next few weeks.

New York, with 88 cases (16 in New York City and 40 in Buffalo), Michigan, with 66 cases (34 in Detroit), Minnesota, with 46 cases (16 in Minneapolis), California, with 45 cases (6 in Los Angeles), and Pennsylvania, with 20 cases (25 cases were reported in Philadelphia), showed decreases as compared with the preceding week. The number of cases reported in New Jersey increased from 10 during the week ended September 2, to 43 during the current week. Eleven cases were reported in Camden. Small increases also were reported in Ohio, with 17 cases, Illinois, with 13 cases, and South Carolina and Texas, with 12 cases each. Over 80 percent of the reported cases occurred in these 10 States.

THE NATIONAL HEALTH SURVEY*

SCOPE AND METHOD OF THE NATION-WIDE CANVASS OF SICKNESS IN RELATION TO ITS SOCIAL AND ECONOMIC SETTING

By GEORGE ST. J. PERROTT, *Principal Statistician*, CLARK TIBBITTS, *Field Director*,
and ROLLO H. BRITTEN, *Senior Statistician, United States Public Health Service*

During the winter of 1935-36 the United States Public Health Service inquired into the state of the Nation's health and underlying

* From the Division of Public Health Methods, National Institute of Health. The National Health Inventory, of which the house-to-house canvass here reported constituted the major part, was a project executed with the aid of grants from the Works Progress Administration. Other phases of the Inventory dealing with health and medical facilities, occupational morbidity and mortality, and communicable diseases, are reported separately. The National Health Survey was carried out in cooperation with the State and local health authorities and various agencies, including medical societies, churches, and special groups. Such cooperation was extremely important in making the undertaking successful.

social and economic factors by means of a house-to-house canvass of over 700,000 households in urban communities in 18 States¹ and 37,000 households in rural areas in 3 States. The present paper sets forth the purpose and scope of the survey, outlines in some detail the method of sampling and canvassing, compares various aspects of the population with 1930 Census data as a rough measure of the reliability of the Health Survey sample, and records the major definitions employed in the survey. Subsequent papers to be published in the PUBLIC HEALTH REPORTS or as special monographs will present the detailed findings.

SCOPE OF THE SURVEY

The data necessary for comprehensive analysis of national health problems are not available from regularly compiled records. Local, State, and Federal health agencies collect information principally on births, deaths, and a limited list of incompletely reported communicable diseases. On the frequency of accidents and disabilities resulting therefrom, only approximate estimates based on records of insurance companies, workmen's compensation commissions, and industrial and safety organizations have been available. As to the provision of medical care, records of doctors, hospitals, and health agencies lack the uniformity and centralization necessary for statistical comparisons. Any adequate picture of care received in relation to needs can be obtained only through family reporting.

The Health Survey procedures were based upon techniques developed by the Public Health Service during 20 years of experience with the family canvass as a method of studying sickness and related economic factors. Earlier important surveys include a series of canvasses in South Carolina cotton-mill villages by the Public Health Service, 1916-18; studies made in Hagerstown, Md., 1921-24; a survey of 9,000 families in 130 communities, made in cooperation with the Committee on the Costs of Medical Care, 1928-31; and the Health and Depression Studies carried on among 11,500 wage earners' families in 8 large cities and 2 groups of coal-mining and cotton-mill villages in 1933. None of the previous surveys covered more than about 10,000 families, whereas the present one included three-quarters of a million families. A large scale survey was needed to permit highly detailed classifications and adequate study of illnesses of long duration or of infrequent occurrence.

The urban surveyed population was so distributed as to give a sample which was, in general, representative of cities in the United States, according to size and region. In large cities (100,000 popula-

¹ See Appendix B.

tion and over) the population to be canvassed was determined by a random selection of many small districts, based on those used in the United States Census of 1930. In the smaller cities selected for study all the population was enumerated.

Data requested from each family² included:

1. Population and related data: Age, sex, color, marital condition, nativity, usual occupation, employment status, family income and relief status, value of home or rent charged, number of rooms in the dwelling, and sanitary facilities.

2. Morbidity data (frequency, nature, duration, etc.) concerning: (a) Illness keeping a person from work, school, or other usual activity on the day of the canvass; (b) illness which had disabled a person in the above sense continuously for 7 days or more during the 12 months preceding the date of the canvass;³ (c) chronic disease, whether or not it had caused disability; (d) gross physical impairment, including lost and impaired legs, feet, arms, and fingers, and total or partial blindness and deafness.⁴

3. Certain data on the kind and amount of medical care: Number of calls by doctors, days spent in hospital, days of private duty nursing, and the number of calls by a visiting nurse.

A copy of the schedule used in collecting these data is included in this report (Appendix A).⁵

METHODS AND TECHNIQUES

Selection of the sample.—The reports in general are based on schedules taken in 83⁶ cities for 703,092 households, comprising 2,502,391 individuals, or a number equivalent to 3.6 percent of the urban population of the United States as reported in the 1930 Census. An additional 36,801 households, comprising 140,418 persons, were canvassed in 23 primarily rural counties, in order that at least indicatory data might be obtained on the rural health problem.

² The information was obtained by interviews with the housewife or other responsible member of the household.

³ Data were also obtained for hospital cases, confinements, and fatal cases which had disabled for less than 7 days.

⁴ A supplementary clinical study of hearing was carried out for the purpose of checking the reports on this subject made by the family. Auditory acuity measurements, otological examinations, and medical histories were obtained for a stratified sample of about 9,000 persons enumerated in the general survey. See list of bulletins on this phase in Appendix C.

⁵ The general nature of the items on which information was secured is largely self-evident from the schedule form. It might be mentioned that for column 15 the information was secured as to whether the person was employed, on work relief, seeking work, retired, not seeking work because of chronic disability, a housewife, at school, or at home. In column 33 three classes were recorded as to termination of the illness: Still disabled (i. e., on day of visit); recovered in the sense of being able to pursue usual activity; died. In the case of accidents and impairments resulting from accidents, information was obtained as to the place of occurrence (home, public, occupational) and whether or not the accident was an automobile accident.

⁶ The original sample included 95 cities, but some of them were dropped for various administrative reasons. Their deletion did not materially affect the representativeness of the sample.

The 83 cities were distributed so as to be representative of 4 main geographic regions, Northeast, North Central, South, and West.⁷

The cities to be studied and the number of schedules to be taken in each one were determined according to a plan designed to result in (1) a population distributed according to geographic area in approximately the same proportion as was the total urban population in 1930, and (2) inclusion of cities distributed among 4 different size-groups—500,000 population or more; 100,000 to 500,000; 25,000 to 100,000; and less than 25,000 population.

The sample was selected as follows: Before choosing the study communities, all cities of 2,500 or more population in the United States were classified on the basis of the 4 regions and according to the size-groups within each region. Cities were then selected to obtain, insofar as possible, size and geographic representation similar to that of these classes.

In order to avoid too great over-representation of large city populations, 32 large cities (of which 31 were over 100,000 in population) were sampled, while 51 smaller cities were completely canvassed. The samples enumerated in the larger cities varied from 5,000 to 45,000 households, not according to a fixed ratio but on the basis of the number believed adequate to represent the individual community, and the number required on the basis of regional and size distribution. In the cities which were not completely canvassed the proportion of surveyed households to total households ranged from 1 in 2 in the smaller cities to about 1 in 38 in the largest cities.

The geographic distribution of the survey sample corresponded very closely to that of the 1930 urban population, as shown in table 1. Financial, administrative, and time considerations made it impossible to include the very large number of small cities necessary to give a sample population distributed by city-size group in the same proportion as the 1930 urban population. Each size-group was nevertheless well represented.

Appendix B shows the survey cities arranged according to region and size-group. Figure 1 shows the location of the cities surveyed.⁸

The proportion of households to be visited in a given sampled city was obtained by dividing the predetermined survey quota of households by the estimated total number of households in the community.⁹ The sampling ratio for each city having been determined, the best

⁷ The Health Survey States included in the 4 regions are: Northeast—Massachusetts, New Jersey, New York, Pennsylvania; North Central—Illinois, Michigan, Minnesota, Missouri, Ohio; South—Alabama, Georgia, Louisiana, Texas, Virginia; West—California, Oregon, Utah, Washington.

Northeast includes the New England and Middle Atlantic groups of the conventional Census classification; North Central includes East and West North Central; South includes South Atlantic and East and West South Central; West includes Mountain and Pacific.

⁸ The 23 rural counties which were studied are located in 3 States and, of course, are not representative of the whole rural population. Sixteen are in Georgia, 4 in Michigan, and 3 in Missouri.

⁹ The total number of households was estimated by dividing the city population in 1930 by 4, the approximate average number of persons per family in urban United States in 1930.

TABLE 1.—Comparative percentage distributions of urban Health Survey and urban 1930 Census populations by geographic area and city size

Region	Regional distribution		City size	City size distribution	
	Health Survey	1930 urban		Health Survey	1930 urban
All.....	100	100	All.....	100	100
Northeast.....	37	39	500,000 or more.....	43	29
North Central.....	33	33	100,000 to 500,000.....	31	23
South.....	18	18	25,000 to 100,000.....	14	19
West.....	12	10	Under 25,000.....	12	29

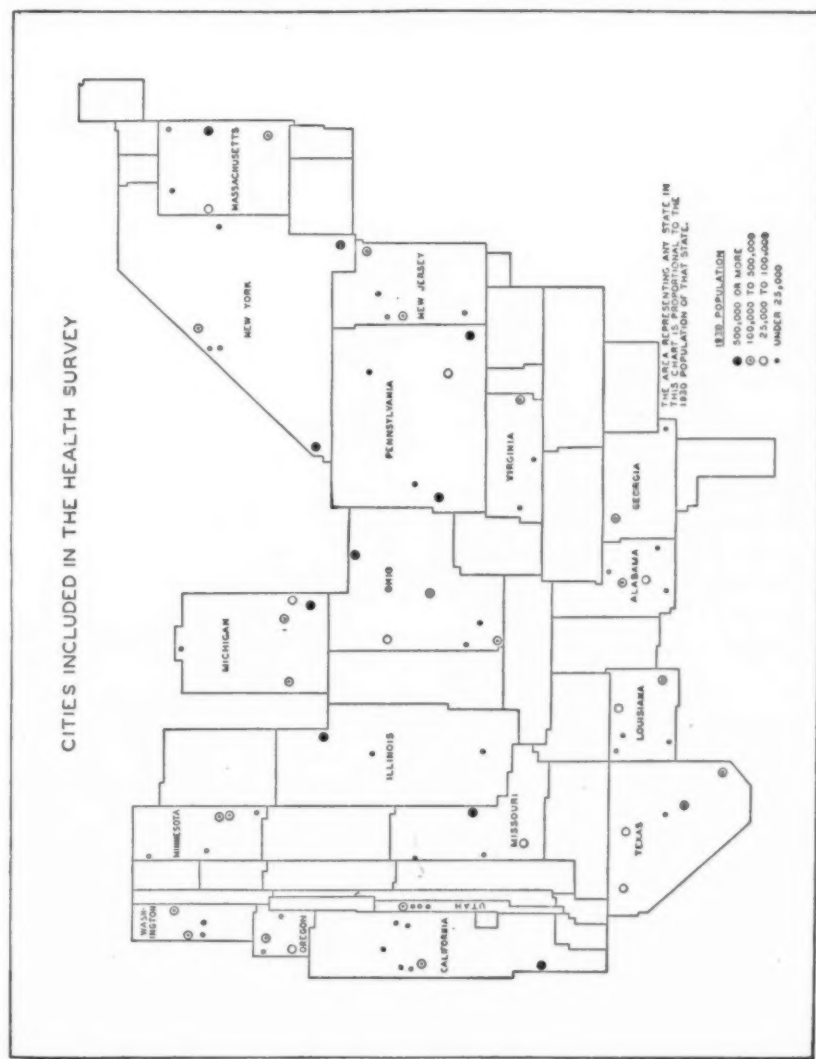


FIGURE 1.

method of identifying households for canvass would have been to make a random selection from a complete list of households in each city, but, unfortunately, no such list was available (except for New York City, where the list was used). The next best unit would have been city blocks; however, the preparation of such a list was impossible in the time available. Hence, it was decided to use groups of city blocks, known as enumeration districts and set up by the Bureau of the Census in 1930. These groups represented units of population in each city and provided convenient assignments for squads of enumerators. Their sampling utility was limited, however, because frequently it was impossible to include enough of them to make certain that each population group within a city would be adequately represented. This difficulty was anticipated, and it was possible partially to avoid it by subdividing larger enumeration districts.¹⁰ A number was assigned to each of these subdistricts (following the numerical order of the enumeration districts themselves), and the appropriate sample was then selected from this list. Thus, if it had been determined that the survey was to include one-eleventh of the population, every eleventh enumeration district or subdistrict was selected from the new list. The sample so obtained no doubt fails in some cases properly to represent minority populations in particular cities, but does serve adequately for groups of cities.

In connection with the question of representativeness of the sample, mention should be made of classes of persons excluded under the definitions set up, provided they had been absent from their own households for a month or longer.¹¹ These are: (a) Persons in penal institutions; (b) residents of Army and Navy posts and barracks, orphanages, and homes for the aged; (c) persons in hotels, rooming houses, and missions who had not been in their present abode for a month or longer.

Selection of enumerators.—The Health Survey,¹² being financed as a

¹⁰ Enumeration districts with populations (in 1930) of more than 1,000 but less than 2,000 were divided into 2 subdistricts of equal residential area: those having populations of from 2,000 to 3,000 were divided into 3 sections, and so on.

¹¹ Persons away from a given household for a month or longer were excluded from the roster of that household, because the informant could not be expected to be cognizant of their illnesses. However, except in the cases specified in the text, such persons (or equivalent persons) would be enumerated in other households.

Schedules and instructions provided for the entry of persons who had gone from the given household to an institution for the care of disease at any time previously (and were still there), but obviously such a record cannot fail to be incomplete. Such persons are excluded from the Health Survey population if they were confined in the institution for the 12 months immediately preceding the canvass. They are, however, included in the illness record.

¹² The States in which the survey was conducted were divided into 5 administrative regions. Each region was assigned to a regional supervisor who had had successful survey experience and who was given training on the schedule and instructions for about 2 weeks before being sent into the field. Each State was assigned to a State supervisor, who was responsible for procurement of space and office equipment, preparation of pay rolls, and accounting.

Each of the local units was placed under the direction of a supervisor. In the larger cities there were one or two assistants, depending on the size of the staff. The enumeration was conducted by groups of from 5 to 8 canvassers working under the direction of squad leaders. A control clerk had charge of the schedules while they were in the local office.

work relief project, drew its canvassing staff from the relief rolls. Through the cooperation of the United States Employment Service and the Works Progress Administration it was possible, for the most part, to select mature persons with previous white-collar work experience. Preference was given to those who had been bookkeepers, teachers, nurses, salesmen, and social workers.¹³ Many had had experience on other surveys. Final selection was made on the basis of aptitude tests.¹⁴

Methods of securing accuracy of schedule entries.—Certain procedures carried out for the purpose of obtaining the greatest possible accuracy of schedule entries should be summarized:

(1) Training in the basic principles underlying these instructions was given to the regional supervisors in the central office before they went into the field. Although the local supervisors and assistants could not be brought to a central point for such training, they received careful instructions from the regional supervisors, frequently at a central point.

(2) Systematic training of enumerators for 10 days or longer was practiced routinely.

(3) Each enumerator was furnished with mimeographed instructions setting forth the proper technique of making the interview and the definitions to be followed with respect to each item on the schedule.

(4) To cover unusual cases, a special manual was placed in the hands of squad leaders so that they could intelligently assist the enumerator when uncertainties as to proper entries arose.

(5) A reviewing staff to examine schedules for completeness and consistency was established in each local office in the ratio of 1 editor to 3 enumerators. In the case of unsatisfactory schedules, comments were entered on slips attached to the schedules, which were then returned to the enumerator for additional information. This was obtained by a revisit where necessary.

¹³ Twenty percent of the households were enumerated by professional persons (nearly half of whom were teachers); 10 percent by enumerators of the proprietor, manager, or official class; 15 percent by salesmen; 8 percent by accountants; 6 percent by real estate or insurance agents; 28 percent by persons in other clerical occupations; 9 percent by persons classified as nonwhite collar; and 3 percent by persons who had never been employed.

Thirty-seven percent of the households were enumerated by persons who had attended college; 95 percent by persons who had attended high school. Nearly two-thirds of the households were enumerated by persons between the ages of 25 and 45; 14 percent by persons under 25; and 23 percent by persons 45 and over. (The above figures are based on a 0.5 percent random sample of the punched cards for the surveyed households.)

¹⁴ The individuals tentatively selected for assignment to the survey were introduced to it through a discussion of its purposes by the local supervisor. They were then sent home with an abbreviated instruction manual, 2 family narratives (i. e., an imaginary interview), a schedule properly filled from one of the narratives, and a blank schedule to be filled from the other narrative. On the following day the home work was reviewed and the prospective enumerators were asked to fill a second schedule from a third narrative. Those who showed no aptitude for the work were returned to the employment service. Successful candidates were given additional training, were paired and required to fill schedules covering each other's families, and were required to attend a prepared dialogue showing how an interview should be conducted. Following this week of intensive training the canvassers were sent into the field to make trial enumerations. Further training was given to those who required it.

(6) The local supervisors were encouraged to write to the central office when any uncertainties as to the interpretation of the instructions arose. Questions were answered in the form of technical bulletins issued to the whole field staff or of special letters to the individual supervisors.

(7) The earliest schedules from each city were examined critically in the central office to determine whether incorrect forms of entry or inconsistencies were present which might indicate lack of understanding of field instructions. Questionable entries were discussed with the local office and in many cases schedules were returned to illustrate unacceptable entries.

(8) Throughout the survey all schedules were examined in the central office for major misinterpretations of the instructions, and the points were taken up through correspondence with the local offices.

Completeness of enumeration.—The support given the survey by the public is indicated by the fact that 98.5 percent of the families which were asked to give information complied with the request, which is as good an attainment as that reached by the last population census, if not a better one.

A check on the completeness of the enumerator's work was made through the use of a control card and a daily record book. Prior to the beginning of the canvass, workers were sent into the field to enter on a small card the address of every building that appeared to be usable for human habitation. These cards were filed in the local office, and later, as each schedule was received from the field, the address was checked against the file. Unoccupied buildings or dwelling units were identified in the enumerator's record book and upon the reported completion of each enumeration district the control clerk compared the unmatched cards with the record book entries. An investigation was made whenever a control card was not accounted for either by a schedule or by a record book entry.

Losses of certain types of persons under the survey definitions have been discussed in connection with the question of representativeness of the sample.

Another aspect of completeness concerns the record of cases of illness among canvassed persons. Exact enumeration of the fact and nature of illness presents much greater difficulties than does the recording of age, sex, and other information of the type obtained in the decennial censuses. Loss of some cases, even among those disabling for a week or more, is therefore inevitable.¹⁵ At the present time, however, the house-to-house canvass, as stated previously, is the only method which is capable of yielding information of the type

¹⁵ Studies of the informant-enumerator interview problem are being carried out by the Health Survey staff. One paper has already been presented on this subject (see Appendix C).

needed—the rates of serious illness and the medical care received in various population groups.¹⁶

Verification of diagnoses.—Enumerators requested the name of the physician who cared for any case of illness, or the hospital for hospitalized cases, and asked permission for the Public Health Service to obtain further medical information from these sources for statistical purposes. Such permission was granted almost without exception. A separate questionnaire, requesting confirmation or change of the diagnosis given by the family and certain supplementary information about the cases, was prepared for each of 13 groups of diagnoses, and was sent to the physician or hospital except in cases where permission was refused. Some 535,000 of these inquiries were mailed and about 400,000 (75 percent) were returned. The number of returned forms could have been increased to 500,000 or more had time and funds permitted a more thorough follow-up. Copies of the death certificates for fatal illnesses reported in the canvass were obtained from local registrars or State health departments in order that the cause of death as stated by the family might be compared with that on the official record.

Special comment is necessary as to the use made of the information received from physicians and hospitals and obtained from death certificates. Many of the illnesses and chronic diseases reported had no medical attendant during the year covered by the survey, and this fact precluded checking the diagnosis. In many instances the physicians did not return the forms, returned them too late for use, or were unable to identify the record.¹⁷ For these and other reasons, medical information was available for only 26 percent of all diagnoses and 35 percent of illnesses disabling for a week and more. On the other hand, when the statements from the family and from the physician could be compared, an agreement of about 90 percent was found in terms of classifications of diagnoses into 15 to 30 groups (table 2).

¹⁶ It has been known since the U. S. census of 1850 that mortality data obtained in house-to-house canvasses are particularly subject to underenumeration. Disappearance of single-person households, breaking up of other households, lack of coverage of orphanages, homes for the aged, and other institutions in which the death rates are particularly high, and the difficulty of establishing the concept of reporting on past members of the household, are some of the factors which result in abnormally low death rates. Since the fatal cases are a small proportion of the total, morbidity rates are not seriously affected by this tendency. Mortality rates based on survey data, on the other hand, are not useful except for special purposes.

¹⁷ The last two of these reasons account for the difference between the percentage of forms returned (75) and the percentage on which a medical diagnosis was received (49) given in table 2.

TABLE 2.—Extent of agreement between family's and physician's statements of diagnosis

Percentage of cases on which a medical report was received: ¹

All diagnoses ²	26.3
All illnesses disabling for a week or longer ³	35.5
Diagnosis for which a medical report was sent out ⁴	49.0

Percentage of matched cases, ⁴ showing agreement when diagnoses are classified into:

93 diagnosis groups.....	83.3
28 diagnosis groups ⁵	90.4
15 diagnosis groups.....	91.2
7 diagnosis groups.....	92.9

¹ Based on 5 percent random sample of case cards, exclusive of orthopedic impairments, hernia, blindness, and deafness. Queries were not sent to physicians for these diagnoses unless they caused disability.² Sole, primary, and contributory diagnoses.³ Sole and primary diagnoses.⁴ Matched cases are diagnoses on which both the family's and physician's statements were available. Agreement means that the diagnoses from both sources fall into the same diagnosis group. Figures are based on tabulations for 10 large cities (Birmingham, Boston, Cleveland, Los Angeles, Minneapolis, New York, Portland, Oreg., St. Louis, Salt Lake City, Syracuse).⁵ The percentage distribution according to these 28 diagnosis groups is shown below for matched cases and all others (illnesses disabling for a week or longer, sole or primary diagnoses):

	Matched cases	All others	Difference
All diagnoses.....	100.00	100.00	-----
Communicable diseases.....	13.83	15.83	+2.00
Common communicable diseases of childhood.....	12.36	14.62	+2.26
Other infectious and parasitic diseases.....	1.47	1.21	-.26
Cancer and tumors.....	2.24	1.78	-.46
Diabetes.....	.76	.53	-.23
Rheumatism and allied diseases.....	3.56	3.60	+.04
Cardiovascular-renal diseases.....	7.60	5.95	-1.65
Nervous and mental diseases.....	3.04	3.30	+.26
Diseases of ear and mastoid process.....	1.69	1.13	-.56
Diseases of respiratory system.....	29.55	30.65	+1.10
Tuberculosis (including nonrespiratory).....	.86	.78	-.08
Pneumonia (all forms).....	3.51	2.49	-1.02
Tonsillitis (including tonsillectomies).....	7.24	5.45	-1.79
Other.....	17.04	21.93	+3.99
Diseases of digestive system.....	8.72	7.84	-.88
Appendicitis (including appendectomies).....	3.01	2.71	-.30
Hernia.....	.65	.58	-.07
Diseases of teeth, mouth, and gums.....	.29	.27	-.02
Other.....	4.77	4.28	-.49
Diseases of thyroid gland.....	.41	.35	-.05
Anemia.....	.36	.27	-.09
Hemorrhoids.....	.45	.43	-.02
Varicose veins.....	.26	.24	-.02
Diseases of bladder and urinary passages and male genital organs.....	.90	.67	-.23
Diseases of female genital organs and complications of pregnancy.....	1.61	1.63	+.02
Confinements.....	8.80	9.07	+.27
Skin diseases.....	1.50	1.17	-.33
Accidents.....	9.80	9.63	-.17
Orthopedic impairments.....	1.02	1.81	+.79
Deafness and blindness.....	.10	.29	+.19
All other.....	3.82	3.83	+.01

It is evident that, if rates had been based solely on cases for which a medical report was received, the incidence would have been grossly understated. Furthermore, to have used the physician's reports where available and the family's reports in other cases would have been an inconsistent procedure. On the other hand, it is equally clear that in terms of any broad classification of disease causes, the family's reports in general coincide with the doctor's reports. For all these reasons, most articles in this series are based on reports given by the family, the information from the physician being used as a criterion of the validity of various diagnosis classifications and for special studies. The death certificate diagnoses will be used for intensive studies of fatal cases but, again for consistency, when the fatal and nonfatal illnesses are treated together, the diagnoses used will be taken from the family's report.

Coding, card punching, and tabulating.—Coding was done by workers from the relief rolls in a single central office under the immediate direction of a large group of coding supervisors.¹⁸ The supervisors worked under the direction of Public Health Service personnel who had had from 10 to 20 years of experience with similar data. The data were placed on punch cards¹⁹ and tabulated in the usual manner.²⁰

COMPARISON OF COMPOSITION OF THE SURVEYED POPULATION WITH THAT SHOWN BY THE 1930 CENSUS

As pointed out, the population enumerated in this study constituted about 3.6 percent of the urban population of the United States (1930).²¹ The methods employed in securing this sample have been described as well as the exclusions involved in the survey definitions. The composition of the surveyed population in comparison with that of the census urban population is of interest as indicating the degree to which the survey population may be taken as representing urban United

¹⁸ Because of the large scale of coding operations, special precautions were necessary to assure accuracy and consistency. Such precautions included the employment of a large group of supervisors (see Appendix E for list of coding and tabulating supervisors); the employment of section chiefs in semisupervisory positions; the use of mimeographed or written instructions and code tables for all coding; the referral to supervisors of all problems that could not be handled routinely; the routine verification of all operations, including 2 or 3 verifications for the more difficult operations; the selection of the best workers for coding of medical information; and the use of a referral unit of physicians to assure assignment of diagnoses to the proper diagnosis groups (nonmedical coders assigned diagnosis code numbers only when the exact term could be found in the alphabetical index to the diagnosis code).

¹⁹ In order to assure the greatest possible accuracy in preparing the punched cards from the coded data, a series of mechanical verification procedures was adopted for the punching operations. Also, as a final precaution before the cards were used in tabulations, a check was made of about one-fifth of the items punched for each schedule so that possibility of internal discrepancy might be obviated. When a chance inconsistency was found, such as disagreement between the code representing the number of persons per family and the number of individual cards punched for that family, reference was made to the schedule and the error corrected. Equally careful verification and reverification methods were employed throughout the machine tabulation processes.

²⁰ The magnitude of these operations is indicated by administrative records. Coding of the schedules required 13,000 man-months of work on the part of a staff that reached 1,000 persons at its peak. Punched cards totalled 4,800,000. Tabulating of these cards required about 1,125 man-months.

²¹ See Appendix C for Health Survey population by age, color, sex, and income and relief status of the family.

States, but changes between 1930 and the time of the survey (winter of 1935-36) are to be kept in mind.

Age.—Comparison of the age distribution of the population studied in this survey with that of the 1930 urban population is given in table 3. The two correspond quite closely, although there is some increase in the percentages at the older ages. The table includes a column giving the percentage distribution for the survey cities (1930 Census). Close agreement with the figures for the whole urban population is indicated.

TABLE 3.—*Percentage distribution by age of the 1930 Census urban population and the National Health Survey population*

Age (years)	Percentage distribution			Age (years)	Cumulative percentage		
	Health survey	1930 Census			Health survey	1930 Census	
		Urban U. S.	Survey cities ¹			Urban U. S.	Survey cities ¹
All ages	100.0	100.0	100.0	All ages	100.0	100.0	100.0
Under 5.....	7.0	8.2	8.0	5 and over.....	93.0	91.8	92.0
5-9.....	8.1	9.0	8.8	10 and over.....	84.9	82.8	83.2
10-14.....	9.0	8.6	8.4	15 and over.....	75.9	74.2	74.8
15-24.....	17.8	18.0	18.1	25 and over.....	58.0	56.1	56.6
25-34.....	17.0	17.3	17.8	35 and over.....	41.0	38.8	38.8
35-44.....	15.8	15.5	15.8	45 and over.....	25.1	23.2	23.0
45-54.....	12.1	11.2	11.3	55 and over.....	13.0	12.0	11.7
55-64.....	7.3	6.9	6.8	65 and over.....	5.7	5.1	4.9
65 and over.....	5.7	5.1	4.9				
Unknown age.....	0.2	0.1	0.1				

¹ For each sampled city the proportion of the 1930 population included was in accordance with the sampling ratio. (See p. 1666.)

Sex ratio.—There were 92.4 males for each 100 females in the Health Survey population. This is 5.7 below the sex ratio of 98.1 which obtained in the 1930 urban population. Part of the difference may be ascribed to a declining national sex ratio.

Color.—The percentage of individuals classified as colored in the Health Survey was 10.1, as against 8.9 in the Census of 1930 (urban).

Sex, age, and color.—In table 4 is shown the percentage distribution by sex, age, and color for the Health Survey population and for the 1930 Census (urban) population. Although certain discrepancies may be noted, partly due to changes between 1930 and 1935-36 and partly to exclusions of some transients under the survey definitions (see p. 1668), the table indicates that the survey sample was representative of urban United States as to age, sex, and color composition.

Size of household.—Distribution of the enumerated households by size shows general uniformity with the urban Census data for 1930 (table 5). "Households" in both instances include unrelated members.

Family income.—Comparison of the percentage distribution of families by income in the Health Survey cities with estimates arrived

at by the National Resources Committee ²² is given in table 6. The agreement is quite close.

TABLE 4.—Percentage distribution of Health Survey population and 1930 urban population by sex, color, and age

Color and age (years)	Percentage of persons					
	Both sexes		Male		Female	
	Health Survey	1930 urban	Health Survey	1930 urban	Health Survey	1930 urban
All colors:						
All ages.....	100.0	100.0	48.0	49.5	52.0	50.5
Under 5.....	7.0	8.2	3.6	4.1	3.5	4.0
5-9.....	8.1	9.0	4.1	4.5	4.0	4.5
10-14.....	9.0	8.6	4.5	4.3	4.5	4.3
15-24.....	17.8	18.0	8.3	8.6	9.6	9.5
25-34.....	17.0	17.3	7.9	8.5	9.1	8.8
35-44.....	15.8	15.5	7.6	7.9	8.2	7.6
45-54.....	12.1	11.2	6.1	5.7	6.1	5.5
55-64.....	7.3	6.9	3.5	3.4	3.8	3.5
65 and over.....	5.7	5.1	2.5	2.4	3.1	2.7
Unknown age.....	.2	.1	.1	.1	.1	(¹)
White and unknown:						
All ages.....	89.9	91.1	43.4	45.2	46.5	45.9
Under 5.....	6.2	7.4	3.1	3.7	3.0	3.6
5-9.....	7.2	8.2	3.6	4.1	3.5	4.0
10-14.....	8.0	7.9	4.0	4.0	4.0	4.0
15-24.....	16.1	16.3	7.5	7.8	8.6	8.5
25-34.....	15.1	15.5	7.1	7.6	8.0	7.9
35-44.....	14.0	14.1	6.8	7.2	7.2	6.9
45-54.....	11.0	10.3	5.5	5.2	5.5	5.0
55-64.....	6.8	6.5	3.3	3.2	3.6	3.3
65 and over.....	5.3	4.9	2.4	2.3	3.0	2.6
Unknown age.....	.1	.1	(¹)	(¹)	.1	(¹)
Colored:						
All ages.....	10.1	8.9	4.7	4.3	5.4	4.5
Under 5.....	.9	.8	.4	.4	.4	.4
5-9.....	.9	.9	.5	.4	.5	.4
10-14.....	1.0	.7	.5	.3	.5	.4
15-24.....	1.7	1.7	.7	.8	1.0	.9
25-34.....	1.9	1.8	.8	.9	1.1	.9
35-44.....	1.8	1.4	.8	.7	.9	.7
45-54.....	1.1	.9	.5	.5	.5	.4
55-64.....	.5	.4	.2	.2	.2	.2
65 and over.....	.3	.2	.1	.1	.2	.1
Unknown age.....	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)

¹ Less than 0.05 percent.

TABLE 5.—Percentage distribution of households by size, Health Survey and urban United States (1930)

Number of persons per household	Health Survey ¹	1930 Census urban ²	Number of persons per household	Health Survey ¹	1930 Census urban ²
1.....	7.8	8.0	5.....	11.8	11.6
2.....	26.2	25.1	6-7.....	9.4	10.6
3.....	21.8	22.1	8+.....	3.7	4.3
4.....	19.4	18.1			

¹ Based on 0.5 percent random sample of punched cards.

² Excludes quasi-families.

²² Consumer Incomes in the United States. Their Distribution in 1935-36. National Resources Committee. Government Printing Office. Washington. 1938. Further discussion of correspondence of income data in the two studies will be found on p. 58 of that report.

The comparisons made in this section show general agreement between the make-up of the survey population and that of urban United States (1930).

TABLE 6.—Percentage distribution of families by income,¹ Health Survey² and National Resources Committee³ estimates

Income	Health Survey	National Resources Committee estimates	Income	Health Survey	National Resources Committee estimates
All incomes.....	100.0	100.0	\$1,000 to \$2,000.....	37.3	35.3
Under \$1,000.....	46.1	46.6	\$2,000 to \$3,000.....	10.8	11.2
			\$3,000 and over.....	5.9	6.9

¹ Families with known income.

² All relief families classified with the group under \$1,000.

³ From Consumer Incomes in the United States. Their Distribution in 1935-36. National Resources Committee, U. S. Government Printing Office, 1938. P. 6.

TERMS AND DEFINITIONS

The meaning of terms used in articles reporting the Health Survey findings will, in general, be apparent from the schedule reproduced in Appendix A and from the tables and discussion contained in the various publications. For ready reference purposes, however, a few explanations and definitions are given below.

The study period.—The survey year is regarded as the 12 months preceding the day of the visit to any particular family.

Enumeration was started early in October 1935 and completed by March 30, 1936.²³ Hence, information was obtained in the survey on sickness experienced between October 1, 1934, and March 30, 1936. The worst phases of the depression had been passed but widespread unemployment and want still prevailed. In relation to the medical care reported by relief families, it should be noted that the Federal Emergency Relief Administration medical care plan was in operation in numerous cities throughout the Nation during 1934 and the first half of 1935.

Population base for illness rates.—Rates of prevalence on the day of the visit and of incidence over the study year are both based on the number of persons in the household at the time of the canvass. Persons born during the study year are, therefore, included in the population base, but not those dying during this period.²⁴ The illness record of both of these groups is, however, included. Persons in institutions for the care of disease during the entire study year are likewise excluded from the population, but included in the illness record insofar as data were obtained.²⁵ Exclusions from both population and illness records are listed on p. 1668.

²³ One percent of the schedules had been filled by November 30, 1935; 20 percent by December 31; 50 percent by January 31, 1936; and 95 percent by March 14.

²⁴ For certain purposes (for instance, illness rates for infants) this rule was modified.

²⁵ The use of a single population base for the several purposes of the survey was adopted for simplicity and because no appreciable error was introduced thereby. It may be observed that the inclusion of infants, who are thus assumed to be under observation for the whole survey year, tends to balance the exclusion of deaths.

Household, family.—One schedule was filled for each household or dwelling unit, i. e., for each group of persons or single person living in one abode or dwelling such as a house, apartment, rooming house, dormitory, nurses' home, or room or suite in a hotel. The "household" includes all persons who reside (sleep) in the abode, regardless of relationship. The term "family" applies to all persons in the household related to the head by blood, marriage, or adoption.

Relief status.—Families were identified as having received relief, if at any time during the survey year one or more members had had aid such as public assistance,²⁶ mothers' pension, pension for the blind, or a grant for any similar purpose from public funds administered by the Federal, State, or local government.

*Family income.*²⁷—Income is defined to include all salaries, wages, business profits (including those received from boarding and lodging houses), income from boarders and lodgers in private families, and income from investments received during the survey year; it thus represents an approximate net yearly income for the family. Families were not asked to report the exact amount of income, but were asked to locate themselves in one of the classifications shown on the schedule. No allowances were made for income in kind.²⁸ If a household had been in existence for less than 1 year, the income was prorated on an annual basis. Families which reported the receipt of relief were not asked to specify the amount of income during the year. "Economic status" is used in the reports to cover the two items of income and relief. For the purpose of classifying persons by income, unrelated members of households (servants, roomers, etc.) are assigned to the income group corresponding to that of the family in which they live.

Occupational class.—A classification of usual occupation was made in conformity with the schedule developed by Dr. Alba M. Edwards of the Census Bureau. Comparability with Census data was attained by employing similar definitions in the enumeration and by coding the original occupation entries according to the Census code and instructions. The occupation entered on the schedule was the one which a person considered to be his usual occupation. Persons seeking their first jobs were recorded as having "no occupation."

Workers.—This term applies to (1) persons employed in private industry and in Government departments, (2) unemployed persons engaged on work relief, and (3) totally unemployed persons seeking work (including those looking for their first jobs). Persons reported to have a chronic disease or permanent impairment which prevented

²⁶ Includes work relief against a relief budget and employment on work relief projects at security wages for persons taken from relief rolls.

²⁷ Income was also reported for the "economic unit" (i. e., a group sharing in a common income), but the reports are based on income as reported for the family.

²⁸ No effort was made to obtain real income for farm families.

them from working or from seeking work are not included among "workers." Employment status was reported as of the day of the visit.

Age.—Age is entered as of last birthday.

Sickness and impairment data.—The following definitions are of importance in interpreting the significance of the sickness and impairment data.

A *disabling illness* is considered an illness that keeps the person from his work, school, domestic duties, or other usual activities. A person unable to pursue usual activities by reason of disease, accident, or physical or mental impairment is regarded as having a disabling illness. Such illnesses may be due to one or more causes (diagnoses).

Disabling illnesses of 1 day or more were recorded providing the person was still unable to work on the day of the visit. For recovered cases, illnesses of 7 consecutive days or longer were recorded.²⁹ Classified with the latter for the purpose of the reports are all hospital cases and confinements which had disabled for less than 7 days. Fatal cases are included regardless of the duration of disability.

A second period of disability due to the same cause, occurring within 7 days of the termination of the first case, constituted a relapse. The duration of disability due to a relapse was added to the duration of the original illness.

Termination of disabling illness was recorded according to status of an illness on day of visit ("recovered," "still unable to work," "died"). "Recovered" means that the illness, the period of disability, had ended and that the person had become able to resume his usual activities; the term does not imply complete recovery.

Diagnosis signifies the nature of an illness. One illness may have more than one diagnosis. If there is only one, it is termed "sole"; if there are two or more, one is termed "primary" and the others "contributory."³⁰ The primary diagnosis is that which had been associated with the disability for the longest period; or, if a separate period of disability was not specified for any diagnosis, the primary diagnosis is the one which was regarded by the family as the most important cause of the disability.

"*Chronic*" and "*acute*" constitute classifications set up for broad comparisons. Where tabulations are by detailed diagnosis, such classification is based on the nature of the diagnosis. Otherwise, the distribution is made on the basis of the duration of the symptoms. If the symptoms had been observed for 3 months or more, the disease was classified as "chronic"; if not, as "acute."

Unemployables are persons reported by the informant to have a chronic disease or permanent impairment which prevented them from

²⁹ Annual rates of frequency of illnesses disabling for a week or longer include those in which the disability began prior to the study year, but the rates of disability (days per case or per person) are based on disability occurring within the study year.

³⁰ When one of two diagnoses was merely a symptom of the other, the symptom was disregarded in coding.

OTHER HANDICAPPING DISEASE OR CONDITION

(Ask if any member of household has any other handicapping disease or condition (in addition to any in cols. 24-42) referring to each of following as suggestive of the kind of thing meant. Enter person's numbers having case, check off as asked, if none. Record below facts for each case. Nature of disease to be as described by informant.)

Asthma.....	Epileptic attacks, fits.....	Neuritis, neuralgia.....
Bright's disease, nephritis.....	Goiter.....	Rheumatism, arthritis.....
Bronchitis.....	Hay fever.....	Tuberculosis.....
Cancer.....	Heart disease.....	Tumors.....
Diabetes.....	Hemorrhoids.....	Varicose veins.....
Digestive disorder.....	High blood pressure.....	Any other chronic disease.....

[illegible]

* Means entry (if required) should be Yes, No, or Unk.

NOTES:

to any recorded
son's number or
ase to be entered

ease

LONG
FIRST
TICKED

19

Interferes
With Job

50*

Estimated Time
Lost Past 12
Months

51

52. Has anyone in this home ever been examined for tuberculosis? *..... or
been in a tuberculosis sanatorium? *.....

(Years ago)	(No.)	(Given name)	(Name and address of doctor, clinic, or sanatorium)

53. Has anyone in this home been to a health clinic or health center in past 12 months? *

(No.)	(Given name)	(Name and address of agency)

54. Has a nurse from any agency made any visits to this home in past 12 months? *

(For what purpose?)	(Name and address of agency (or nurse))

55. (a) Number of years household has been established

(b) Number of years in this house

(c) Number of years in this city

(d) Number of moves from one locality to another in last 10 years

(e) Moved from farm within last 10 years? *.....

56. (a) House or apart-
ment?

(b) If renting, { Now..
monthly rental.... 1929..

(c) If owned, value now

(d) Number of rooms

59. ESTIMATED TOTAL FAMILY INCOME FOR LAST
12 MONTHS

	(Check)
\$5,000 or more.....	
\$3,000 but under \$5,000.....	
\$2,000 but under \$3,000.....	
\$1,500 but under \$2,000.....	
\$1,000 but under \$1,500.....	
Less than \$1,000.....	

57. Water (check): City..... Other.....

58. Toilet (check).... Private Communal

Flush inside.....

Flush outside.....

Other.....

60. Was relief received in past 12 months? *

(Name and address of agency)

61. Degree of cooperation (check): Good Fair Poor
(Person's number and name of informant)

62. Date of visit 63.

64. Enumerator

(Do not write in this space)

1. FAMILY NAME

2. ADDRESS

UNITED STATES
PUBLIC HEALTH
SERVICEHEALTH
SURVEYALL INFORMATION
IS STRICTLY
CONFIDENTIALTO BE USED FOR
STATISTICAL
PURPOSES ONLY

District

ROSTER
(Members of Household)RELA-
TION TO
HEAD OF
HOUSE-
HOLDPER-
SON'S
No.

NAME

5

6

7

(Given)

(Last)

1

2

3

4

5

6

7

8

DISABLING ILLNESSES*

PER-
SON'S
No.

ENTER: (a) Illness today.
 (b) Illness—7 days or longer—past 12 months—include all
 hospital cases and all confinements.
 (c) Hospital, etc., now—add to roster.
 (d) Deaths—Past 12 months—add to roster.
 (SEPARATE line for EACH illness for EACH person)

MONTH AND
YEAR OF
ONSET OF THIS
DISABLING
ILLNESS

Given Name

Nature of Illness or Accident

24

25

26

27

18 a

(Name and address of sick benefit association)

*Means entry (if required) should be Yes, No, or Unk.

NOTES:

170189°—39 (Face p. 1679)

Appendix A

APT. No. 3. CITY 4. STAT

[illegible][illegible]

19a. (What war?) 19b. (Rank) 19c. (Po)

[illegible]

working or seeking work. The subjective nature of this criterion is recognized.

Invalidism is considered continuous disability for a period of 12 months prior to the day of the visit. The inclusion of some persons not *permanently* disabled is balanced, to some extent at least, by the exclusion of persons becoming permanently disabled during the study year.

Impairments are permanent handicaps resulting from disease, accident, or congenital defect, including impaired or lost members (termed orthopedic impairments), and serious defects of vision or hearing. Impairments may be either disabling or nondisabling.

Physicians' care is attention received from a doctor of medicine, including care in home, office, clinic, or outpatient department, but excluding care in a hospital. The case receiving such care may or may not have been a hospital case.

A hospital case is a case which was confined to a hospital for 24 hours or longer. "Hospital" includes any institution for the care of physical or mental disease.

Private duty nursing care is considered to be bedside care by a full-time nurse, including care by special nurses in hospital, but not nursing service rendered by the hospital without special charge. Where the patient was attended by both day and night nurses, 2 days of care were recorded for each attended day. No attempt was made to distinguish between registered and nonregistered nurses.

Nursing visits are visits by nurses from any agency, including service from private duty nurses secured on an hourly basis.

These definitions agree with those set up for the enumerators, but the point should be made that, despite all efforts to lay down and employ exact definitions, the interpretation of these terms tends to vary somewhat with the enumerator and the informant.

FINDINGS

There have already been published a series of bulletins, listed in Appendix D, giving preliminary findings of the survey. It is now intended to report the results of the survey in considerable detail in a number of articles to be published in the PUBLIC HEALTH REPORTS or as special monographs. Subjects of reports to be issued in the near future include: Broad results, illness and medical care in special age groups (children, youths, aged); illness and disability in relation to economic status, unemployment, and dependency; disability among male and female workers; frequency of accidents (home, public, and occupational), and specifically of automobile accidents; prevalence and causes of orthopedic impairments; degree of adequacy of maternal services; housing conditions and sanitary facilities.

Appendix B

The 83 Health Survey cities arranged according to region, city size group, and State, together with the number of households enumerated in each

CITIES OF 500,000 OR MORE POPULATION¹

Northeast		North Central		South		West	
City	Households enumerated	City	Households enumerated	City	Households enumerated	City	Households enumerated
Boston, Mass.	29,808	Chicago, Ill.	38,501	(?)		Los Angeles, Calif.	26,297
Buffalo, N. Y.	24,065	Detroit, Mich.	21,389				
New York, N. Y.	48,281	St. Louis, Mo.	24,116				
Philadelphia, Pa.	32,360	Cleveland, Ohio	31,993				
Pittsburgh, Pa.	26,391	Total	115,999				
Total	154,895						

CITIES OF 100,000 TO 500,000¹

Northeast		North Central		South		West	
City	Households enumerated	City	Households enumerated	City	Households enumerated	City	Households enumerated
Fall River, Mass.	10,481	Flint, Mich.	4,826	Birmingham, Ala.	11,172	Oakland, Calif.	8,361
Newark, N. J.	13,999	Grand Rapids, Mich.	6,112	Atlanta, Ga.	10,737	Portland, Oreg.	10,329
Trenton, N. J.	7,580	Minneapolis, Minn.	12,255	New Orleans, La.	13,192	Salt Lake City, Utah	7,775
Syracuse, N. Y.	12,827	Cincinnati, Ohio	12,649	Dallas, Tex.	10,898	Seattle, Wash.	9,724
Total	44,887	St. Paul, Minn.	17,899	Houston, Tex.	11,738	Spokane, Wash.	8,127
		Columbus, Ohio	11,058	Richmond, Va.	12,542	Total	44,316
		Total	58,739	Total	70,279		

CITIES OF 25,000 TO 100,000²

Northeast		North Central		South		West	
City	Households enumerated	City	Households enumerated	City	Households enumerated	City	Households enumerated
Pittsfield, Mass.	11,951	Port Huron, Mich.	8,285	Montgomery, Ala. ¹	9,742	Salem, Oreg.	8,142
Lebanon, Pa.	6,412	Springfield, Mo.	16,690	Monroe, La.	6,985		
Total	18,363	Lima, Ohio	11,283	Amarillo, Tex.	11,091		
		Total	36,228	Wichita Falls, Tex.	10,793		
				Total	38,611		

CITIES OF LESS THAN 25,000¹

Greenfield, Mass.....	4,045	Benton, Ill.....	2,107	Eufala, Ala.....	1,412	Chico, Calif.....	2,539
Ipswich, Mass.....	1,448	Normal, Ill.....	1,749	Gadsden, Ala.....	5,525	Grass Valley, Calif.....	1,507
Bridgeport, N. J.....	4,419	Houghton, Mich.....	1,691	Greenville, Ala.....	1,048	Jackson, Calif.....	1,683
Camden, N. J.....	1,100	Chisholm, Minn.....	1,778	Brunswick, Ga.....	3,094	Napa, Calif.....	1,812
Somerville, N. J.....	2,106	Wilmar, Minn.....	1,799	Abbeville, La.....	1,373	Vallejo, Calif.....	4,626
Rudson, N. Y.....	3,185	Winona, Minn.....	6,426	Bossier, La.....	1,917	LaGrande, Oreg.....	2,264
Newark, N. Y.....	1,861	Chillicothe, Mo.....	2,135	Minden, La.....	1,401	St. Helens, Oreg.....	1,279
Penn Yan, N. Y.....	1,314	Clinton, Mo.....	1,646	Weatherford, Tex.....	1,497	Bingham Canyon, Utah.....	905
Durycia, Pa.....	1,729	Franklin, Ohio.....	1,088	Covington, Va.....	1,501	Eureka, Utah.....	651
Indiana, Pa.....	2,490	Wilmington, Ohio.....	1,499	Farmville, Va.....	857	Tooele, Utah.....	1,143
Total.....	23,897	Total.....	21,218	Total.....	18,625	Ellensburg, Wash.....	1,466
						Olympia, Wash.....	3,721
						Total.....	22,596
Total.....	242,042		232,184		163,741		101,351

¹ Sampled. The approximate proportions of the population covered are as follows:

Atlanta, one-seventh; Baltimore, special sampling procedure; Birmingham, one-sixth; Boston, one-seventh; Buffalo, one-sixth; Chicago, one-twenty-fourth; Cincinnati, one-tenth; Cleveland, one-seventh; Columbus, one-eighth; Dallas, one-seventh; Detroit, one-nineteenth; Fall River, one-third; Flint, one-eighth; Grand Rapids, one-ninth; Houston, one-eighth; Los Angeles, one-eighth; Minneapolis, one-eleventh; Montgomery, one-half; Newark, N. J., one-eighth; New York City, one-thirty-eighth; New Orleans, one-ninth; Oakland, one-eleventh; Philadelphia, one-fifteenth; Pittsburgh, one-eighth; Portland, one-ninth; Richmond, one-fourth; St. Louis, one-ninth; St. Paul, one-seventh; Salt Lake City, one-fifth; Seattle, one-tenth; Spokane, one-fourth; Syracuse, one-fifth; Trenton, one-fourth.

² Baltimore is the only city of this size in the South. The eastern and western health districts of this city were included in the survey for a special purpose, but since this method of sampling did not give a representative cross section of the city, Baltimore is excluded from the general reports. As this city was the only one canvassed in Maryland, its exclusion reduced to 18 the number of States on which these reports are based.

³ Completely canvassed.

Appendix C

Population surveyed in urban areas, classified by age, color, sex, and annual income and relief status of the family

Color, sex, annual family income and relief status	Number of persons									
	All ages	Under 5 years	5-9 years	10-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65 years and over
Both sexes: All colors										
All incomes.....	2,502,391	175,653	202,770	224,391	446,369	425,301	395,925	303,008	182,754	142,409
Relief.....	452,897	46,431	53,059	57,128	83,038	59,568	66,858	45,625	25,872	22,087
Nonrelief under \$1,000.....	577,678	38,943	42,074	47,358	102,079	97,256	86,423	67,325	47,515	45,815
\$1,000 to \$1,500.....	538,210	39,739	44,423	47,021	93,358	101,795	87,426	62,042	35,890	26,002
\$1,500 to \$2,000.....	394,351	24,558	28,538	33,332	68,418	72,995	69,195	50,429	27,525	18,001
\$2,000 to \$3,000.....	279,063	14,661	18,794	22,037	48,768	50,345	50,460	38,568	21,440	13,588
\$3,000 to \$5,000.....	110,312	4,671	6,324	7,899	19,924	18,778	19,393	16,921	10,047	6,153
\$5,000 and over.....	50,278	1,754	2,696	3,355	8,455	7,900	8,642	8,316	5,367	3,606
Unknown income.....	99,602	3,893	4,992	6,233	22,329	16,754	14,128	13,782	9,128	7,157
Male:										
All incomes.....	1,201,992	86,214	101,917	112,076	206,685	196,845	191,157	151,540	87,047	63,636
Relief.....	222,033	23,540	26,575	28,500	40,437	27,529	28,031	23,325	13,204	10,724
Nonrelief under \$1,000.....	270,373	20,407	21,443	23,512	45,927	44,983	41,038	32,205	21,004	19,639
\$1,000 to \$1,500.....	261,557	20,117	22,549	23,590	42,777	48,429	43,797	31,499	17,107	11,507
\$1,500 to \$2,000.....	191,900	12,539	14,830	16,533	32,346	33,859	34,363	25,909	13,465	7,952
\$2,000 to \$3,000.....	135,254	7,430	9,417	11,137	23,120	22,804	24,718	19,662	10,756	6,098
\$3,000 to \$5,000.....	52,857	2,335	3,285	3,976	9,177	8,425	9,074	8,500	5,143	2,882
\$5,000 and over.....	22,723	1,331	1,884	1,725	3,563	3,125	3,728	3,944	2,671	1,709
Unknown income.....	45,295	1,961	2,487	3,103	9,340	7,791	6,408	6,496	4,237	3,125
Female:										
All incomes.....	1,300,399	86,439	100,853	112,315	239,673	228,456	204,768	151,468	95,707	78,773
Relief.....	230,864	22,891	26,484	28,626	42,601	32,039	31,827	22,300	12,608	11,363
Nonrelief under \$1,000.....	307,305	19,536	21,531	23,876	56,152	52,373	45,385	35,120	26,511	26,176
\$1,000 to \$1,500.....	276,653	19,622	21,874	23,431	50,581	53,366	43,629	30,543	18,753	14,465
\$1,500 to \$2,000.....	202,451	12,019	14,708	16,739	36,072	39,046	34,832	24,520	14,090	10,049
\$2,000 to \$3,000.....	143,809	7,231	9,377	10,900	25,648	27,541	25,742	18,906	10,684	7,490
\$3,000 to \$5,000.....	57,455	2,335	3,039	3,923	10,747	10,353	10,319	8,421	4,804	3,271
\$5,000 and over.....	27,555	870	1,365	1,630	4,862	4,775	4,914	4,372	2,696	1,897
Unknown income.....	54,307	1,935	2,475	3,130	12,980	8,903	7,720	7,286	4,891	4,032
Both sexes: White										
All incomes.....	2,240,995	154,150	178,999	199,812	403,300	377,455	351,521	276,313	170,907	133,854
Relief.....	359,285	36,104	41,816	45,886	67,527	45,352	45,672	36,535	21,634	18,598
Nonrelief under \$1,000.....	463,631	31,361	33,718	37,740	82,220	72,880	65,455	55,300	42,220	42,037

Male:	All incomes.....	511,693	38,011	42,298	44,673	89,006	96,413	82,131	58,833	34,540	25,305	482
	\$1,000 to \$1,500.....	386,052	24,135	28,975	32,591	67,002	71,242	67,547	49,318	27,063	17,750	429
	\$1,500 to \$2,000.....	14,472	1,451	1,897	2,166	48,186	49,612	49,835	38,138	21,240	13,491	389
	\$2,000 to \$3,000.....	109,450	4,651	5,297	7,873	19,730	18,557	10,215	16,803	9,493	6,129	200
	\$3,000 to \$5,000.....	1,742	3,614	2,688	3,348	8,320	8,025	8,417	8,198	3,320	3,584	166
Unknown income.....		94,726	3,614	4,645	5,935	21,309	15,774	13,249	13,190	8,595	6,959	1,197
Unknown income.....		1,085,400	78,267	90,241	100,144	188,582	176,610	170,610	138,194	81,843	59,886	1,023
Female:	All incomes.....	178,966	18,347	21,125	23,042	33,588	34,512	31,753	26,199	11,236	9,156	36
	\$1,000 to \$1,500.....	128,273	16,028	16,485	18,853	37,048	36,040	31,176	26,739	18,483	17,990	207
	\$1,500 to \$2,000.....	248,544	19,220	21,455	22,441	40,826	46,040	41,068	29,739	16,378	11,221	156
	\$2,000 to \$3,000.....	187,803	12,314	14,552	16,149	31,706	33,523	33,523	25,309	13,206	7,842	98
	\$3,000 to \$5,000.....	133,603	7,340	9,298	11,011	22,891	22,478	24,383	19,443	10,641	6,060	108
Unknown income.....		52,567	2,380	3,275	3,969	9,120	8,355	8,012	8,453	5,126	2,869	58
Unknown income.....		22,470	879	1,380	1,723	3,532	3,039	3,660	3,909	2,653	1,703	42
Unknown income.....		43,114	1,813	2,325	2,956	8,971	7,349	6,025	6,192	4,120	3,045	318
Both sexes:	All incomes.....	1,104,595	75,883	88,768	99,668	214,718	200,845	180,911	138,119	89,004	73,968	2,061
	\$1,000 to \$1,500.....	245,358	17,817	20,691	22,844	33,939	33,619	23,919	17,585	10,388	9,442	65
	\$1,500 to \$2,000.....	263,149	18,791	20,843	22,932	48,186	50,373	34,279	29,101	18,162	14,085	493
	\$2,000 to \$3,000.....	198,249	11,821	14,423	16,442	35,296	38,138	34,024	29,094	18,162	14,085	326
	\$3,000 to \$5,000.....	142,028	7,132	9,022	10,504	25,295	27,134	25,442	24,009	13,857	9,408	281
Unknown income.....		26,956	2,321	3,022	3,694	10,610	10,202	10,203	8,350	4,869	3,260	142
Unknown income.....		51,653	1,801	2,320	2,979	12,338	8,425	7,224	6,998	4,775	3,914	879
Colored	All incomes.....	252,396	21,503	23,771	24,579	43,069	47,846	41,004	26,695	11,817	8,555	527
	\$1,000 to \$1,500.....	93,612	10,267	11,243	11,240	13,511	14,216	14,186	9,090	4,238	3,469	132
	\$1,500 to \$2,000.....	114,047	8,582	9,256	9,648	19,549	24,376	20,968	12,025	5,295	3,778	200
	\$2,000 to \$3,000.....	26,517	1,728	2,125	2,348	4,352	5,382	5,295	3,209	1,320	696	62
	\$3,000 to \$5,000.....	8,299	423	563	741	1,416	1,663	1,663	1,111	462	251	21
Unknown income.....		3,372	189	232	271	582	733	625	430	200	97	13
Unknown income.....		852	20	27	26	104	178	178	118	62	24	2
Unknown income.....		4,835	12	7	7	135	275	225	120	47	22	1
Unknown income.....		852	8	317	298	1,020	980	879	592	233	198	36
Male:	All incomes.....	116,592	10,847	11,676	11,832	18,114	20,235	20,547	13,346	5,804	3,750	241
	\$1,000 to \$1,500.....	43,067	5,193	5,450	5,458	6,849	8,798	6,278	4,375	2,028	1,598	172
	\$1,500 to \$2,000.....	52,100	4,897	4,562	4,659	7,979	10,371	9,802	6,005	2,521	1,649	108
	\$2,000 to \$3,000.....	13,013	1,897	1,094	1,149	1,951	2,389	2,739	1,760	2,521	286	29
	\$3,000 to \$5,000.....	4,097	225	119	126	640	326	219	1,600	259	110	6
Unknown income.....		1,290	6	10	7	57	326	47	115	38	4	4
Unknown income.....		253	5	1	2	31	70	68	35	17	13	1
Unknown income.....		2,181	148	162	147	378	442	383	304	117	80	20

Population surveyed in urban areas, classified by age, color, sex, and annual income and relief status of the family—Continued

Color, sex, annual family income and relief status	Number of persons									
	All ages	Under 5 years	5-9 years	10-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65 years and over
Female:										
Colored—Continued										
All incomes.....	135,804	10,556	12,095	12,647	24,955	27,611	23,457	13,349	6,043	286
Relief.....	50,545	5,074	5,793	5,782	8,662	8,420	7,908	4,715	2,210	60
Nonrelief under \$1,000.....	61,947	4,199	4,694	4,989	11,880	14,005	11,106	6,019	2,774	132
\$1,000 to \$1,500.....	13,504	831	1,031	1,199	2,401	2,993	2,566	1,449	591	33
\$1,500 to \$2,000.....	4,202	198	285	357	776	908	808	511	203	15
\$2,000 to \$3,000.....	1,781	99	113	145	353	407	300	211	85	9
\$3,000 to \$5,000.....	14	14	17	19	137	151	116	71	35	1
\$5,000 and over.....	599	7	7	5	104	189	157	85	29	16
Unknown income.....	2,654	134	155	151	642	538	496	288	116	16

Appendix D

LIST OF PRELIMINARY RELEASES

DIVISION OF PUBLIC HEALTH METHODS, NATIONAL INSTITUTE OF HEALTH, UNITED STATES PUBLIC HEALTH SERVICE, WASHINGTON, 1938

Introductory Bulletin

Significance, scope, and method of a Nation-wide family canvass of sickness in relation to its social and economic setting.

Sickness and Medical Care Series

- Bulletin 1. An estimate of the amount of disabling illness in the country as a whole.
- Bulletin 2. Illness and medical care in relation to economic status.
- Bulletin 3. Accidents as a cause of disability.
- Bulletin 4. The prevalence and causes of orthopedic impairments.
- Bulletin 5. Adequacy of urban housing in the United States as measured by degree of crowding and type of sanitary facilities.
- Bulletin 6. The magnitude of the chronic disease problem in the United States.
- Bulletin 7. Illness among employed and unemployed workers.
- Bulletin 8. Maternal care in Michigan—a study of obstetric practices.
- Bulletin 9. Disability from specific causes in relation to economic status.
- Bulletin 10. Blindness—amount, causes, and relation to certain social factors.
- Bulletin 11. Pneumonia in urban United States: Frequency, severity, and medical care.

Population Series

- Bulletin A. Families distributed by income during the survey year.
- Bulletin B. Families classified by occupational class of the head.
- Bulletin C. The relief and income status of the urban population of the United States, 1935.
- Bulletin D. Characteristics of the urban unemployed.
- Bulletin E. Color, sex, and age of the population enumerated.

Hearing Study Series

- Bulletin 1. Significance, scope, and method of a clinical investigation of hearing in the general population.
- Bulletin 2. Preliminary analysis of audiometric data in relation to clinical history of impaired hearing.
- Bulletin 3. Prevalence of aural pathology and clinical history of impaired hearing among males and females of various ages.
- Bulletin 4. Normal hearing by air and bone conduction.
- Bulletin 5. Normal hearing for speech at each decade of life.
- Bulletin 6. Sex differences and age variations in hearing loss in relation to stage of deafness.
- Bulletin 7. Generalized age and sex trends in hearing loss.

Other Publications

- Britten, Rollo H.: Housing and health. *Am. J. Pub. Health*, **28**:8 (1938).
- Britten, Rollo H.: A study of dental care in Detroit, Michigan. *Pub. Health Rep.*, **53**:446-459 (1938). Reprint No. 1919.
- Britten, Rollo H.: Urban housing conditions in the United States. *U. S. Bureau of Labor Statistics, Labor Information Bulletin*, **5**:1-4 (1938).
- Dean, Archibald S., and Haenszel, William M.: Milk consumption in Buffalo. Supplement to Statistical Survey, March 1938. University of Buffalo, Bureau of Business and Social Research, Buffalo, New York. (Data for this study were collected on a supplemental schedule at the time of the Health Survey.)
- Goddard, Jennie C., and Palmer, Carroll E.: Maternal services in Michigan with special reference to economic status. *Pub. Health Rep.*, **54**:825-840 (1939).
- Holland, Dorothy F., and Perrott, G. St. J.: Health of the Negro. *Milbank Memorial Fund Quarterly*, **16**:5-38 (1938).
- Kiser, Clyde V.: Birth rates and socio-economic attributes in 1935. *Milbank Memorial Fund Quarterly*, **17**:446-459 (1939).

- Kiser, Clyde V.: Variations in birth rates according to occupational status, family income, and educational attainment. *Milbank Memorial Fund Quarterly*, **16**:39-56 (1938).
- Lienau, C. C.: The enumerator factor in the Health Survey. An address before American Statistical Association, December 28, 1938 (mimeographed).
- Mountin, Joseph W., and O'Hara, Hazel: Differences in opportunities for health. *Pub. Health Rep.*, **53**:485-496 (1938). Reprint No. 1920.
- Parran, Thomas: The relationship of maternal and child health to the general health program. An address before the Children's Bureau Conference, January 17, 1938, Washington, D. C. (mimeographed).
- Perrott, G. St. J.: Chronic illness in New York City—a report by its citizens. An address before the New York City Welfare Council, May 1938 (mimeographed).
- Perrott, G. St. J.: Health problems of low income families. An address before the American Public Welfare Association, December 12, 1937. *The Health Officer*, **2**:488-495 (1938).
- Perrott, G. St. J.: Income and health. *Plan Age*, **4**:34-38 (1938).
- Perrott, G. St. J.: Medical needs revealed by the National Health Survey. 1938 Proceedings of the National Conference of Social Work. University of Chicago Press, 1939.
- Perrott, G. St. J.: A startling report on the Nation's health. *Life and Health*, **53**:12 (1938).
- Perrott, G. St. J., and Holland, Dorothy F.: Chronic disease and gross impairments in a northern industrial community. *J. Am. Med. Assoc.*, **108**:1876-1886 (1937).
- Perrott, G. St. J., and Holland, Dorothy F.: Health as an element in social security. *Annals of the American Academy of Political and Social Science*, **202**:116-136 (1939).
- Roche, Josephine: Medical care as a public health function. *Am. J. Pub. Health*, **27**:1221-1226 (1937).
- Tibbitts, Clark: What do we know about health in a depression? Read before Detroit Regional Conference of Social Workers, May 6, 1938 (mimeographed).
- United States Senate: Illness and medical care among the unemployed. Statement by Surgeon General Thomas Parran, United States Public Health Service, and detailed report submitted to the Special Senate Committee to Investigate Unemployment and Relief, March 16, 1938. (Hearings pursuant to S. Res. 36.)

Appendix E

NATIONAL HEALTH SURVEY STAFF ¹

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 Clark Tibbitts, *Field Director*
 Rollo H. Britten, *in Charge of Analysis*

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Fitzgerald, James S.	Lienau, Carl C.	Revell, Kenneth W.
Goddard, Jennie C.	Luykx, H. M. C.	Seeley, Burton D.
Hailman, David E.	McPherson, James L.	Shannon, Robert D.
Holland, Dorothy F.	Ogburn, Howard R.	

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Beckham, T. Ashby	Hayes, Grant	Scheer, Michael J.
Billows, Owen C.	Huffman, Ruby	Socha, Edmund S., M. D.
Block, Louis	Kamin, Louis E., M. D.	Taff, Melville A., Jr.
Cheney, Bess A.	Kaplan, Mae P.	Welch, Lily V.
Cohen, Zeldon S.		

¹ Acknowledgment is also made to the other members of the staff and to the 150 State and local supervisors, whose names it has not been possible to give for lack of space.

ADMINISTRATIVE CHIEFS

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 Balderston, Wm. S.
 Brown, J. E.

Duerr, W. Ludwig
 Dutton, Lillian B.
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McPherson, James L.
 Ogburn, Howard R.

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Klem, Margaret C.
 McGill, Kenneth H.

Morrison, Elizabeth K.
 Steep, Miriam

TWO NEW SPECIES OF *OPISOCROSTIS* (SIPHONAPTERA)¹

By NEWELL E. GOOD, *Associate Entomologist*, and FRANK M. PRINCE, *Assistant Entomologist, United States Public Health Service*

During the course of investigations on the distribution of plague in the western United States by the United States Public Health Service Plague Laboratory, two undescribed species of fleas of the genus *Opisocrostis* Jordan were encountered on ground squirrels from several localities in Oregon, Washington, and Idaho, and are described in this paper.

Opisocrostis oregonensis, new species

(Figures 1 and 2)

Male and female.—Color light amber, abdominal tergites somewhat darker.

Frontal tubercle distinct, only slightly less prominent than in *O. tuberculatus* (Baker). Preantennal region of head with the frontal row of bristles having only one small bristle near the front margin, even this sometimes degenerate. In the ocular row there are three bristles, the first large, the second quite small, and the third, on the lower anterior margin of the gena, large. Several small setae are interspersed between the bristles in this row. Eyes, postantennal region, and posterior margin of head as in *O. labis* (Jord. and Roths). Labial palpi five jointed; shorter than in *O. tuberculatus* and *O. labis*, reaching only slightly (0.0 to 0.08 mm.) beyond the apex of the fore trochanter in the female, and from the middle of the fore trochanter to slightly beyond the base of the fore femur in the male.

¹ From the Plague Suppressive Measures Laboratory, San Francisco, Calif.

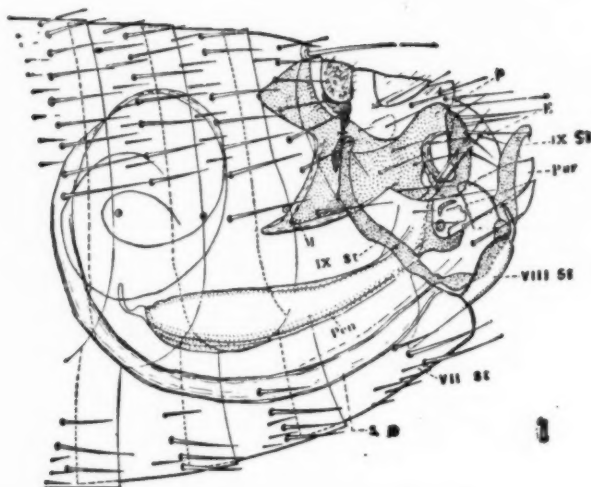


FIGURE 1.—*Opisocrostitis oregonensis* new species, posterior abdominal segments of male. $\times 66$.

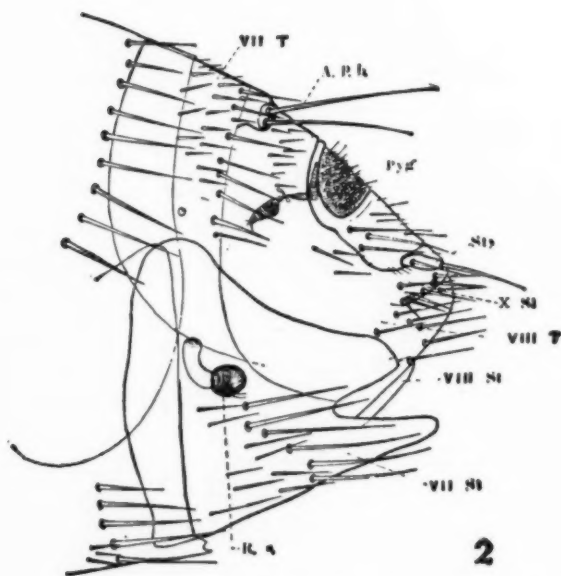


FIGURE 2.—*Opisocrostitis oregonensis* new species, posterior abdominal segments of female. $\times 74$.

Abbreviations.—A. p. b., antepygidial bristles; Ac., acetabulum and acetabular bristles; E, exopodite of clasper; M, manubrium of clasper; P, process of clasper; Par, parameres; Pen., penis; Pyg., pygidium; R. s., receptaculum seminis (spermatheca); S. p., spring of penis; St., sternite; Sti., stigma; Sty., stylet; T., tergite.

The pronotal ctenidium has a total of 19 to 21 spines. Apical spines, on each side, metanotum 4 or 5; abdominal tergites I and II, 2 each, rarely 3 or 1; abdominal tergite III, 1, rarely 2. Abdominal tergites II to VII each with 2 rows of bristles. On each side the principal row contains 8 to 10 long bristles interspersed with setae while the anterior row contains 7 to 9 smaller bristles. Bristles of abdominal sternites: Basal 4 to 11, average 7 in the female, and 2 to 7 in the male. On sternites III to VII the principal row contains, in the female 5 or 6, sometimes 7, and in the male 3 or 4, rarely 5, long bristles, anterior to which there are several small bristles arranged irregularly. The number of these ranges, in the female, from about 3 on sternite III to from 10 to 17 on sternite VII, and in the male from 2 or 3 on sternite III to 6 or 7 on sternite VII.

Modified segments—Female.—Antepygidial bristles, two, the lower one three-quarters to four-fifths the length of the upper one (fig. 2, A. p. b.). Head of receptaculum seminis (R. s.) nearly globular, its greatest length usually a fraction greater than its height (average height 0.051 mm., average length 0.055 mm.). Tail of receptaculum seminis long, thickest at the tip which is nearly truncate and more heavily chitinized than the sides of the tail. Sternite VII has a deep V-shaped notch. The length of the upper tooth, from base of notch to apex of tooth, varies from 0.07 to 0.14 mm., average 0.12 mm., while the length of the lower tooth varies from 0.11 to 0.22 mm., and averages 0.19 mm. The stylet (Sty.) bears either one or two lateral bristles in addition to the apical bristle, and is about three times as long as broad.

Modified segments—Male.—Antepygidial bristles, one. Manubrium of clasper (fig. 1, M) triangular, pointed, much broader at base and shorter than that of *O. tuberculatus*. The process (P) of the clasper has the upper and posterior margins evenly and continuously rounded, the lower posterior angle is nearly a right angle and the lower margin comparatively long and nearly horizontal. There are two long acetabular bristles. The exopodite (E), or movable process, of the clasper is most similar to that of *O. tuberculatus* but longer, more nearly vertical with the inner (anterior) face long, straight, and with a definite upper-anterior angle. Parameres (Par) comparatively thick at base with lower margin convex and evenly rounded to apex, upper margin slightly concave near apex. Sternite VIII without subapical bristles. Two short, thick membranous filaments, which are united on their basal third and usually appear as a single filament, extend from the apex of sternite VIII. The internal portion of sternite IX is moderately slender and of almost equal width throughout. The external portion of sternite IX is more slender near the apex than at the middle and is concave on the posterior margin.

Length.—Female, 2.3 to 2.7 mm., average 2.51 mm.; male, 1.8 to 2.2 mm., average 2.05 mm. for normally extended specimens. Hind femur: Female 0.44 to 0.50 mm., average 0.47 mm.; male, 0.40 to 0.53 mm., average 0.45 mm.

Type locality.—Baker County, Oreg.

Type host.—*Citellus oregonus* (Merriam).

Holotype ♀ and allotype ♂, lot No. O-767, were collected 8 miles south of Baker, Baker County, Oreg., on April 24, 1938, from *Citellus oregonus*.

Paratypes.—Sixty-five taken on *Citellus oregonus* in Oregon as follows: 1 ♀ in April 1938 in Umatilla County; 1 ♂ in May 1937 and 1 ♂, 6 ♀♀ in April 1938 in Union County; 5 ♂♂, 1 ♀ in May 1937, 3 ♂♂, 4 ♀♀ in June 1937, 1 ♂, 6 ♀♀ in July 1937, and 4 ♀♀ in March 1938 in Wallowa County; 10 ♂♂, 15 ♀♀ in April 1938 and 3 ♀♀ in May 1938 in Baker County; 1 ♂, 3 ♀♀ in May 1937 in Grant County.

Sixty-four paratypes were collected from *Citellus columbianus* (Ord) as follows: 1 ♂, 1 ♀ in April 1938 in Umatilla County, Oreg.; 2 ♂♂, 2 ♀♀ in July 1936, and 5 ♀♀ in April 1938 in Union County, Oreg.; 1 ♀ in May 1937, 5 ♂♂, 13 ♀♀ in June 1937, 1 ♀ in July 1937, 1 ♂ in March 1938, and 1 ♀ in April 1938 in Wallowa County, Oreg.; 7 ♂♂, 8 ♀♀ in April 1938 in Baker County, Oreg.; 1 ♂, 1 ♀ in June 1937, and 3 ♂♂, 4 ♀♀ in May 1938 in Grant County, Oreg.; 6 ♂♂, 1 ♀ in August 1936 in Custer County, Idaho.

In addition to the above paratype material the following specimens in our collection seem to belong in this species: 1 ♀ from *Citellus oregonus* collected in Deschutes County, Oreg., in June 1938; 1 ♀ from *C. oregonus* in Harney County, Oreg., in July 1937; 2 ♀♀ from *Citellus townsendii* (Bachman) (= *C. mollis* (Kennicott)) in Harney County, Oreg., in June 1938; 1 ♀ from *C. townsendii* in Ada County, Idaho in June 1936; 1 ♂ from *Citellus idahoensis* Merriam in Elmore County, Idaho, in June 1936; and 1 ♀ from *Citellus* sp. in Crook County, Oreg., in June 1938.

All material from Oregon was collected by the Oregon State Plague Survey field truck, with E. C. Parkinson in charge. Specimens from Ada and Elmore Counties, Idaho, were collected by the United States Public Health Service Plague Survey field truck, with A. D. Davison in charge. Specimens from Custer County, Idaho, were collected by the Idaho State Plague Survey field truck.

The holotype and allotype are deposited in the collection of the United States Public Health Service Plague Laboratory, San Francisco, Calif. Paratypes have been deposited at the above laboratory and at the Rocky Mountain Laboratory, Hamilton, Mont., the United States National Museum, the California Academy of Sciences, and at the British Museum.

Variation.—One male from *Citellus columbianus*, Baker County, Oreg., April 29, 1938, No. O-769, has a single long subapical bristle on sternite VIII.

Notes.—The female of *O. oregonensis* is readily distinguished from previously described species of *Opisocrostitis* by the deep V-shaped notch of sternite VII and by the almost globular head of, and the broad and somewhat chitinated tip of the tail of the receptaculum seminis. The male is easily distinguished by the entire lack of subapical bristles on sternite VIII; by the short, broad, ventrally convex parameres, which in other species of *Opisocrostitis* are long, sickle-shaped, with the lower margin concave; by the apically slender, posteriorly concave sternite IX, which in other species is club-shaped; by the characteristic shapes of the exopodite and process of the clasper; and by the short, pointed, and extremely broad-based manubrium.

Opisocrostitis washingtonensis, new species
(Figures 3 and 4)

Closely related to *O. oregonensis* Good and Prince.

Male and female.—Frontal tubercle distinct, about as prominent as in *O. tuberculatus*. Other characters, except modified segments, as in *O. oregonensis*.

Modified segments—Female.—Head of receptaculum seminis (R. s.) as in *O. oregonensis*, tail thickest near, but not at, the tip which is gently rounded but less so than in *O. labis*. The tip is more heavily chitinated than the sides, but not as much so as in *O. oregonensis*. The sinus in sternite VII is very small and inconspicuous, similar to that of *O. labis* but with the margins of the sinus no more heavily chitinated than the other parts of the sternite. Measurements of the sinus are as follows: Base of sinus to apex of upper lobe 0.019 to 0.051 mm., average 0.026 mm.; base of sinus to apex of lower lobe 0.055 to 0.078 mm., average 0.063 mm. Lower antepygial bristle about nine-tenths the length of the upper one. Stylet at least two-fifths as broad as long, usually with one lateral bristle.

Modified segments—Male.—Manubrium (M) of clasper comparatively short but not as short as that of *O. oregonensis*. Its base is likewise comparatively broad but not as broad as in *O. oregonensis*. Its tip is narrowly rounded and slightly upturned. Process (P) of clasper short but high, the posterior margin straight, vertical, the lower-posterior angle very obtuse and the lower margin very short, almost obliterated. Exopodite (E) intermediate between those of *O. oregonensis* and *O. tuberculatus*, the inner (anterior) face rather short, sloping, sinuous, and slightly concave. Parameres (Par) nipple or lemon-shaped, broad at base. Sternite VIII with two long subapical bristles and two short, membranous apical filaments. Internal part of sternite IX similar to that of *O. oregonensis* but

slightly narrower throughout. External part of sternite IX similar to that of *O. oregonensis* but somewhat thicker from the middle to the apex.

Length.—Female, 2.4 to 2.9 mm., average 2.50 mm.; male, 1.7 to

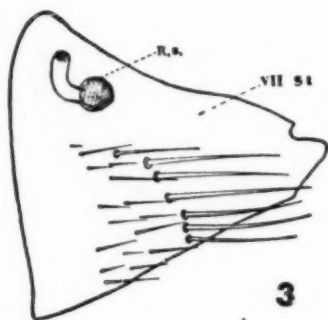


FIGURE 3.—*Opisocrostitis washingtonensis* new species, female, sternite VII. $\times 51$.

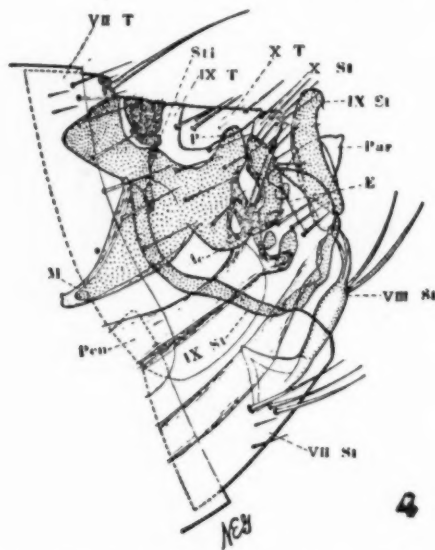


FIGURE 4.—*Opisocrostitis washingtonensis* new species, male, genital segments. $\times 33$.

2.1 mm., average 1.89 mm. Hind femur: Female, 0.46 to 0.56 mm., average 0.50 mm.; male, 0.38 to 0.45 mm., average 0.42 mm.

Type locality.—Adams County, Wash.

Type host.—*Citellus washingtoni* Howell (= *C. townsendii* auct.).

Holotype female, allotype male, and three female paratypes collected two miles east of Lind, Adams County, Wash., on March 7, 1938, from *Citellus washingtoni*.

Paratypes.—The following 105 paratypes were taken from *Citellus washingtoni*: 10 ♂♂, 12 ♀♀ in June 1937, and 10 ♂♂, 13 ♀♀ in June 1938 in Lincoln County, Wash.; 1 ♀ in May 1937, 13 ♂♂, 23 ♀♀ in

March 1938, 1 ♂, 12 ♀♀ in April 1938, 2 ♀♀ in May 1938, and 1 ♂, 3 ♀♀ in June 1938 in Adams County, Wash.; and 1 ♂, 3 ♀♀ in April 1938 in Umatilla County, Oreg.

Five paratypes were taken from *Citellus oregonus* as follows: 2 ♀♀ in July 1937, and 1 ♂ in May 1938 in Gilliam County, Oreg.; and 2 ♂♂ in May 1938 in Morrow County, Oreg.

All specimens from Washington were collected by the Washington State Plague Survey field truck, with L. J. Hughes in charge. All specimens from Oregon were collected by the Oregon State Plague Survey field truck, with E. C. Parkinson in charge.

The holotype and allotype are deposited in the collection of the United States Public Health Service Plague Laboratory, San Francisco, Calif. Paratypes have been deposited at the above laboratory and at the Rocky Mountain Laboratory, Hamilton, Mont., the United States National Museum, the California Academy of Science, and the British Museum.

COURT DECISION ON PUBLIC HEALTH

Liability of town for pollution of stream.—(North Carolina Supreme Court; *Clinard et ux. v. Town of Kernersville et al.*, 3 S.E.2d 267; decided June 16, 1939.) An action was brought against a town and a knitting mill to recover damages because of the pollution of a stream which crossed plaintiffs' land. It appeared that water from the town's sewage disposal plant and water used by the knitting mill in connection with its dyeing process entered the stream. Because the dye water from the knitting company was disposed of under the sole supervision and control of the town, the supreme court said that no liability was imposed upon the company for any damage caused to plaintiffs' property, but that, if there was any damage, sole responsibility therefor rested upon the town. Damages had been awarded the plaintiffs in the lower court but, because the supreme court took the view that certain evidence should not have been submitted to the jury, a new trial was ordered. The appellate court concluded its opinion as follows:

The plaintiffs are entitled to have permanent damages assessed for the maintenance of the continuing nuisance alleged, if established, or rather for the appropriation by the defendant of an easement over and across the lands of the plaintiffs in the use of the stream in the manner complained of. The damages to be thus assessed are those which are proximately caused by the use of the stream by the defendant in the manner alleged by the plaintiffs, if it is found that it is so used, which is a continuing and permanent use amounting to the appropriation of an easement. The damages are to be assessed as of the time the defendant first began to discharge into the stream water and other substance which polluted the water and produced noxious and offensive odors on plaintiffs' land. The damages are to be ascertained upon the basis of the difference between the fair

and reasonable market value of the property just before the defendant began to so use the stream and the fair and reasonable market value thereof just after the beginning of such use, assessed upon the theory that the defendant at that time took and appropriated an interest in the property of the plaintiffs for which it must pay. Past, present, and prospective damages are not to be considered.

DEATHS DURING WEEK ENDED AUGUST 26, 1939

[From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce]

	Week ended Aug. 26, 1939	Correspond- ing week, 1938
Data from 88 large cities of the United States:		
Total deaths.....	6,895	7,120
Average for 3 prior years.....	¹ 7,188	-----
Total deaths, first 34 weeks of year.....	287,114	280,595
Deaths under 1 year of age.....	455	555
Average for 3 prior years.....	¹ 525	-----
Deaths under 1 year of age, first 34 weeks of year.....	17,207	18,076
Data from industrial insurance companies:		
Policies in force.....	66,791,913	68,411,272
Number of death claims.....	10,328	11,019
Death claims per 1,000 policies in force, annual rate.....	8.1	8.4
Death claims per 1,000 policies, first 34 weeks of year, annual rate.....	10.4	9.3

¹ Data for 86 cities.

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers.

In these and the following tables, a zero (0) indicates a positive report and has the same significance as any other figure, while leaders (....) represent no report, with the implication that cases or deaths may have occurred but were not reported to the State health officer.

Cases of certain diseases reported by telegraph by State health officers for the week ended September 2, 1939, rates per 100,000 population (annual basis), and comparison with corresponding week of 1938 and 5-year median

Division and State	Diphtheria				Influenza				Measles			
	Sept. 2, 1939, rate	Sept. 2, 1939, cases	Sept. 3, 1938, cases	1934-38, median	Sept. 2, 1939, rate	Sept. 2, 1939, cases	Sept. 3, 1938, cases	1934-38, median	Sept. 2, 1939, rate	Sept. 2, 1939, cases	Sept. 3, 1938, cases	1934-38, median
NEW ENG.												
Maine.....	24	4	1	1					6	1	25	9
New Hampshire.....	0	0	0	0					0	0	1	0
Vermont.....	0	0	0	0					40	3	0	0
Massachusetts.....	4	3	1	3					35	30	19	19
Rhode Island.....	0	0	0	0					99	13	2	2
Connecticut.....	0	0	1	1				1	33	11	4	4
MID. ATL.												
New York.....	8	8	8	12	11	11	11	12	22	54	75	75
New Jersey.....	0	0	0	4			8	6	6	5	13	16
Pennsylvania.....	6	11	16	17					20	40	138	93
E. NO. CEN.												
Ohio.....	10	13	17	17	3	4		8	11	14	13	27
Indiana.....	18	12	3	5	3	2	3	12	10	7	3	3
Illinois.....	7	10	13	16	4	6	9	6	5	8	11	15
Michigan.....	6	6	6	6	3	3			0	0	28	27
Wisconsin.....	0	0	2	2	18	10	15	15	39	22	47	41
W. NO. CEN.												
Minnesota.....	19	10	9	2	2	1	2	1	50	26	20	6
Iowa.....	4	2	8	5			3	1	34	17	4	1
Missouri.....	9	7	7	10			14	14	1	1	2	6
North Dakota.....	15	2	2	2			7		15	2	25	3
South Dakota.....	0	0	1	1	30	4	1		38	5	0	0
Nebraska.....	0	0	1	1					0	0	2	3
Kansas.....	25	9	1	2					6	2	3	8

For footnotes see end of table.

(1695)

Cases of certain diseases reported by telegraph by State health officers for the week ended September 2, 1939, rates per 100,000 population (annual basis), and comparison with corresponding week of 1938 and 5-year median—Continued

Division and State	Diphtheria				Influenza				Measles			
	Sept. 2, 1939, rate	Sept. 2, 1939, cases	Sept. 3, 1938, cases	1934-38, median	Sept. 2, 1939, rate	Sept. 2, 1939, cases	Sept. 3, 1938, cases	1934-38, median	Sept. 2, 1939, rate	Sept. 2, 1939, cases	Sept. 3, 1938, cases	1934-38, median
SO. ATL.												
Delaware	0	0	2	1					0	0	0	0
Maryland ²	3	1	6	6			3	2	12	4	1	6
Dist. of Col.	8	1	2	5	8	1			16	2	1	1
Virginia ²	30	16	36	24	22	12			13	7	3	13
West Virginia	13	5	8	11	8	3	17	17	8	3	1	9
North Carolina ²	89	61	61	36		1		1	28	19	20	11
South Carolina ²	16	6	23	4	314	115	103	53	8	3	1	1
Georgia ²	75	45	34	14	25	15			10	6	0	0
Florida ²	9	3	6	8	12	4			12	4	22	1
E. SO. CEN.												
Kentucky	17	10	20	19			3	3	3	2	0	9
Tennessee	11	6	5	15	12	7	13	6	11	6	2	2
Alabama ²	21	12	40	26	11	6	13	5	2	1	0	4
Mississippi ²	43	17	23	18								
W. SO. CEN.												
Arkansas	55	22	14	12	30	12	15	3	7	3	13	0
Louisiana ²	17	7	7	9	12	5	3	7	2	1	0	0
Oklahoma	14	7	8	6	8	4	12	8	6	3	8	0
Texas ²	21	25	31	36	27	33	67	27	22	27	14	18
MOUNTAIN												
Montana	0	0	2	1					103	11	10	4
Idaho	0	0	0	0			1		0	0	5	1
Wyoming	0	0	0	0	22	1			175	8	4	2
Colorado	63	13	20	6	24	5			14	3	7	7
New Mexico	12	1	5	2	12	1			0	0	1	1
Arizona	0	0	0	2	86	7	13	7	12	1	4	1
Utah ²	0	0	0	0					40	4	8	3
PACIFIC												
Washington	3	1	0	0					71	23	4	5
Oregon	10	2	5	2	5	1	4	4	50	10	5	5
California	16	19	15	15	9	11	12	11	43	53	81	43
Total	15	377	470	463	13	274	343	339	19	465	650	633
35 weeks	15	12,780	15,410	15,802	205	152,280	46,816	104,679	403	349,371	761,975	699,686

Division and State	Meningitis, meningococcus				Polio-myelitis				Scarlet fever			
	Sept. 2, 1939, rate	Sept. 2, 1939, cases	Sept. 3, 1938, cases	1934-38, median	Sept. 2, 1939, rate	Sept. 2, 1939, cases	Sept. 3, 1938, cases	1934-38, median	Sept. 2, 1939, rate	Sept. 2, 1939, cases	Sept. 3, 1938, cases	1934-38, median
NEW ENG.												
Maine	0	0	0	0	0	0	0	2	6	1	2	7
New Hampshire	0	0	0	0	0	0	0	0	10	1	0	0
Vermont	0	0	0	0	27	2	0	0	13	1	1	1
Massachusetts	0	0	0	1	4	3	1	3	21	18	28	28
Rhode Island	0	0	0	0	0	0	0	0	0	0	0	3
Connecticut	0	0	0	0	3	1	2	2	9	3	6	4
MID. ATL.												
New York	0.4	1	2	3	40	100	14	14	18	46	40	72
New Jersey	0	0	0	1	12	10	3	4	19	16	9	13
Pennsylvania	1	2	4	4	22	44	3	13	29	57	74	66

For footnotes see end of table.

Cases of certain diseases reported by telegraph by State health officers for the week ended September 2, 1939, rates per 100,000 population (annual basis), and comparison with corresponding week of 1938 and 5-year median—Continued

Division and State	Meningitis, meningococcus				Poliomyelitis				Scarlet fever			
	Sept. 2, 1939, rate	Sept. 2, 1939, cases	Sept. 3, 1938, cases	1934-38, median	Sept. 2, 1939, rate	Sept. 2, 1939, cases	Sept. 3, 1938, cases	1934-38, median	Sept. 2, 1939, rate	Sept. 2, 1939, cases	Sept. 3, 1938, cases	1934-38, median
E. NO. CEN.												
Ohio.....	1.5	2	1	1	8	11	2	14	35	46	34	49
Indiana.....	0	0	1	1	3	2	0	2	49	33	37	28
Illinois.....	0	0	0	3	6	9	3	19	37	57	65	82
Michigan ²	0	1	0	0	115	109	5	26	79	75	62	64
Wisconsin.....	1.8	1	0	1	12	7	7	7	116	66	42	42
W. NO. CEN.												
Minnesota.....	0	0	0	0	116	60	1	5	25	13	21	18
Iowa.....	0	0	1	1	4	2	1	2	43	21	17	13
Missouri.....	0	0	0	2	0	0	0	0	18	14	16	19
North Dakota.....	7	1	0	0	7	1	0	1	44	6	9	4
South Dakota.....	0	0	0	0	8	1	0	0	68	9	6	6
Nebraska.....	4	1	0	0	8	2	0	0	11	3	4	4
Kansas.....	0	0	0	0	8	3	0	2	75	27	55	17
SO. ATL.												
Delaware.....	0	0	0	0	0	0	0	0	20		5	4
Maryland ²	0	0	1	1	3	1	0	0	37	12	2	11
Dist. of Col.....	8	1	0	1	8	1	1	1	16	2	11	4
Virginia ²	0	0	1	2	0	0	3	5	9	5	10	12
West Virginia.....	2.7	1	1	1	5	2	1	3	27	10	16	21
North Carolina ²	1.5	1	3	2	12	8	2	3	44	30	24	24
South Carolina ²	0	0	0	0	16	6	0	0	8	3	4	2
Georgia ²	0	0	0	0	3	2	0	1	22	13	15	9
Florida ²	0	0	0	0	21	7	1	1	6	2	2	2
E. SO. CEN.												
Kentucky.....	1.7	1	1	2	5	3	0	7	50	29	38	29
Tennessee.....	0	0	0	0	5	3	1	1	18	10	11	11
Alabama ²	0	0	4	1	1.8	1	2	4	30	17	17	11
Mississippi ²	2.5	1	1	0	0	0	2	2	28	11	8	8
W. SO. CEN.												
Arkansas.....	0	0	0	0	5	2	0	0	22	9	4	4
Louisiana ²	0	0	1	0	0	0	0	0	2	1	8	8
Oklahoma.....	0	0	0	0	4	2	0	0	18	9	5	6
Texas ²	0	0	2	0	7	8	1	3	26	31	34	21
MOUNTAIN												
Montana.....	0	0	1	0	0	0	2	2	84	9	8	5
Idaho.....	0	0	0	0	10	1	0	0	0	0	6	3
Wyoming.....	0	0	0	0	0	0	0	0	65	3	3	4
Colorado.....	0	0	0	0	5	1	0	2	19	4	7	11
New Mexico.....	0	0	0	0	25	2	0	0	12	1	2	2
Arizona.....	12	1	0	0	98	8	0	1	12	1	0	1
Utah ²	0	0	0	0	10	1	0	0	50	5	7	10
PACIFIC												
Washington.....	0	0	1	1	3	1	1	1	25	8	8	9
Oregon.....	0	0	0	0	10	2	1	1	30	6	17	16
California.....	0	0	0	3	41	50	3	24	44	54	53	53
Total.....	0.6	15	26	42	19	479	63	333	32	799	843	862
35 weeks.....	1.6	1,423	2,214	4,292	3.4	3,018	1,090	4,687	131	117,978	138,694	166,580

See footnotes at end of table.

Cases of certain diseases reported by telegraph by State health officers for the week ended September 2, 1939, rates per 100,000 population (annual basis), and comparison with corresponding week of 1938 and 5-year median—Continued

Division and State	Smallpox				Typhoid and paratyphoid fever				Whooping cough		
	Sept. 2, 1939, rate	Sept. 2, 1939, cases	Sept. 3, 1938, cases	1934-38, median	Sept. 2, 1939, rate	Sept. 2, 1939, cases	Sept. 3, 1938, cases	1934-38, median	Sept. 2, 1939, rate	Sept. 2, 1939, cases	Sept. 3, 1938, cases
NEW ENG.											
Maine.....	0	0	0	0	24	4	1	1	91	15	24
New Hampshire.....	0	0	0	0	0	0	0	0	0	0	0
Vermont.....	0	0	0	0	13	1	0	0	684	51	19
Massachusetts.....	0	0	0	0	5	4	1	4	132	112	78
Rhode Island.....	0	0	0	0	0	0	1	0	298	39	10
Connecticut.....	0	0	0	0	12	4	3	3	196	66	28
MID. ATL.											
New York.....	0	0	0	0	4	11	28	29	106	264	484
New Jersey.....	0	0	0	0	7	6	15	6	114	96	186
Pennsylvania.....	0	0	0	0	8	16	24	24	222	438	319
E. NO. CEN.											
Ohio.....	2	2	0	0	8	10	29	37	161	209	149
Indiana.....	0	0	3	0	21	14	16	16	65	44	8
Illinois.....	1	1	2	1	170	4 259	20	25	144	220	504
Michigan.....	0	0	1	1	10	9	14	16	202	191	296
Wisconsin.....	0	0	0	1	0	0	5	3	213	121	402
W. NO. CEN.											
Minnesota.....	6	3	4	1	4	2	0	2	33	17	40
Iowa.....	4	2	0	0	6	3	4	5	38	19	26
Missouri.....	0	0	2	1	12	9	25	27	26	20	8
North Dakota.....	0	0	3	0	7	1	0	0	248	34	60
South Dakota.....	8	1	0	0	0	0	1	2	105	14	3
Nebraska.....	4	1	0	0	4	1	0	0	8	2	1
Kansas.....	0	0	1	1	11	4	11	12	48	17	37
SO. ATL.											
Delaware.....	0	0	0	0	20	1	2	1	118	6	8
Maryland.....	0	0	0	0	15	5	10	11	129	39	23
Dist. of Col.....	0	0	0	0	16	2	7	5	234	29	16
Virginia.....	0	0	0	0	24	13	7	19	34	18	9
West Virginia.....	0	0	0	0	32	12	39	18	13	5	40
North Carolina.....	0	0	0	0	29	20	14	16	161	110	224
South Carolina.....	0	0	0	0	16	6	19	18	16	6	69
Georgia.....	0	0	0	0	30	18	18	34	28	17	16
Florida.....	0	0	0	0	3	1	6	3	21	7	0
E. SO. CEN.											
Kentucky.....	2	1	0	0	57	33	22	44	42	24	29
Tennessee.....	0	0	0	0	16	9	9	33	39	22	9
Alabama.....	0	0	1	0	11	6	16	16	32	18	6
Mississippi.....	0	0	0	0	23	9	8	9			
W. SO. CEN.											
Arkansas.....	5	2	0	0	47	19	30	12	40	16	17
Louisiana.....	0	0	0	0	48	20	13	19	56	23	22
Oklahoma.....	0	0	0	0	26	13	16	18	4	2	1
Texas.....	0	0	0	1	50	60	51	51	33	40	112
MOUNTAIN											
Montana.....	0	0	0	1	19	2	0	5	103	11	57
Idaho.....	0	0	0	0	20	2	2	2	10	1	8
Wyoming.....	0	0	0	0	22	1	1	1	65	3	1
Colorado.....	5	1	0	0	14	3	11	6	43	9	81
New Mexico.....	0	0	6	0	86	7	10	10	124	10	80
Arizona.....	12	1	0	0	25	2	8	4	12	1	14
Utah.....	0	0	0	0	20	2	2	2	387	39	28

For footnotes see end of table.

Cases of certain diseases reported by telegraph by State health officers for the week ended September 2, 1939, rates per 100,000 population (annual basis), and comparison with corresponding week of 1938 and 5-year median—Continued

Division and State	Smallpox				Typhoid and paratyphoid fever				Whooping cough		
	Sept. 2, 1939, rate	Sept. 2, 1939, cases	Sept. 3, 1938, cases	1934-38, median	Sept. 2, 1939, rate	Sept. 2, 1939, cases	Sept. 3, 1938, cases	1934-38, median	Sept. 2, 1939, rate	Sept. 2, 1939, cases	Sept. 3, 1938, cases
PACIFIC											
Washington.....	0	0	4	3	9	3	10	3	37	12	23
Oregon.....	5	1	12	0	15	3	2	7	35	7	8
California.....	0	0	3	1	10	12	12	12	55	67	147
Total.....	1	16	42	27	29	642	543	614	102	2,531	3,625
35 weeks.....	10	8,767	12,769	6,139	9	8,226	9,269	9,374	152	131,769	151,689

¹ New York City only.

² Period ended earlier than Saturday.

³ Typhus fever, week ended Sept. 2, 1939, 93 cases as follows: Maryland, 1; Virginia, 1; North Carolina, 4; South Carolina, 5; Georgia, 37; Florida, 6; Alabama, 9; Mississippi, 2; Louisiana, 5; Texas, 23.

⁴ 240 cases of typhoid fever, with 8 deaths, have been reported for the week at the Manteno State Hospital, Manteno, Ill.

ROCKY MOUNTAIN SPOTTED FEVER

Cases reported by States, Feb. 26 to Sept. 9, 1939

State	Feb. 26 to Mar. 25	Mar. 26 to Apr. 22	Apr. 23 to May 20	May 21 to June 17	June 18 to July 15	July 16 to Aug. 12	Week ended Aug. 19	Week ended Aug. 26	Week ended Sept. 2	Week ended Sept. 9
Eastern:										
New York.....				3	3	1			1	
New Jersey.....				4	8	7	6	1	1	
Pennsylvania.....				6	3	4		1		
Delaware.....				3			1			
Maryland.....			7	13	11	23	2	6	3	1
District of Columbia.....			2	2	2	3	1	1		
Virginia.....			1	13	10	11	2	1	2	6
West Virginia.....						1				
North Carolina.....				3	13	13	3	2		1
Georgia.....				1	1	1				
Central:										
Ohio.....				3	2	4		3		
Indiana.....				2	1	3	2	1		2
Illinois.....			1	1	5	7	1			
Kentucky.....							3	2		1
Tennessee.....					5	5	4	2	1	2
Iowa.....			1	10	9	6	1			
Missouri.....				1		4		1	1	2
Western:										
Montana.....	12	2	8	5	1	2			1	
Idaho.....		4	7	4	5					
Wyoming.....		3	14	16	5	5				
Colorado.....		2	3	9	4					
Arizona.....								1		
Utah.....		2	5	5	6	2		1		
Washington.....		2	3	2						
Oregon.....		9	16	7	2	1				

¹ 1 other case was reported in Montana as occurring in February, exact date not given.

SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of cases reported monthly by States is published weekly and covers only those States from which reports are received during the current week.

State	Diph- theria	Influ- enza	Ma- laria	Mea- sles	Menin- gitis, menin- gococ- cus	Pella- gra	Pollo- mye- litis	Scarlet fever	Small- pox	Ty- phoid and paraty- phoid fever
<i>July 1939</i>										
Alaska.....	0	8		426	0		0			1
Dist. of Col.	29	1		109	1		0	9	0	9
Georgia.....	55	80	306	62	2	48	32	35	1	135
Hawaii Territory ..	20	4	1	9	0		19	1	0	2
Illinois.....	81	22	166	77	2		18	280	11	67
Kansas.....	4	5	4	53	5		6	94	2	13
Kentucky.....	17	8	7	14	8	13	9	32	1	130
Massachusetts.....	15			1,107	3	4	3	156	0	22
Montana.....	2	4		126	1			36	2	6
New Mexico.....	7		7	17	1	2	3	22	1	21
North Carolina.....	44	6	104	212	4	34	20	63	2	81
North Dakota.....	10	9	1	45	2		4	11	0	2
Ohio.....	38	27	7	140	2		14	281	25	49
Oklahoma.....	11	26	463	101		29	8	26	14	108
Rhode Island.....	1			211	1		0	10	0	5
South Dakota.....	8	27	1	56	1		0	49	21	3
Utah.....	5	1	1	103	0		2	27	0	4
Virginia.....	56	99	15	438	6	19	6	54	0	116

July 1939

Actinomycosis:	Cases	Dysentery—Continued.	Cases	Mumps—Continued.	Cases
Hawaii Territory.....	1	North Carolina (bacil- lary).....	5	Hawaii Territory.....	61
Chickenpox:		Ohio (bacillary).....	39	Illinois.....	231
Alaska.....	3	Oklahoma (amoebic).....	2	Kansas.....	130
District of Columbia.....	18	Oklahoma (bacillary).....	133	Kentucky.....	18
Georgia.....	23	Utah.....	4	Massachusetts.....	157
Hawaii Territory.....	24	Virginia (amoebic).....	1	Montana.....	17
Illinois.....	272	Virginia (bacillary).....	1,521	New Mexico.....	7
Kansas.....	34	Encephalitis, epidemic or lethargic:		North Dakota.....	14
Kentucky.....	9	Hawaii Territory.....	1	Ohio.....	462
Massachusetts.....	332	Illinois.....	8	Oklahoma.....	7
Montana.....	47	Kansas.....	4	Rhode Island.....	31
New Mexico.....	7	Massachusetts.....	1	South Dakota.....	6
North Carolina.....	18	Montana.....	2	Utah.....	158
North Dakota.....	34	North Dakota.....	2	Virginia.....	45
Ohio.....	277	Oklahoma.....	1	Ophthalmia neonatorum:	
Oklahoma.....	13	German measles:		Illinois.....	6
Rhode Island.....	16	Alaska.....	4	Massachusetts.....	70
South Dakota.....	2	Illinois.....	16	Rhode Island.....	1
Utah.....	80	Kansas.....	5	Puerperal septicemia:	
Virginia.....	37	Massachusetts.....	39	Georgia.....	2
Conjunctivitis, infectious:		New Mexico.....	1	Rabies in animals:	
Georgia.....	7	North Carolina.....	16	Illinois.....	15
Hawaii Territory.....	26	North Dakota.....	3	Massachusetts.....	6
Oklahoma.....	2	Ohio.....	18	New Mexico.....	3
Diarrhea:		Rhode Island.....	4	Oklahoma.....	8
New Mexico.....	15	Utah.....	9	Rhode Island.....	2
Ohio (under 2 years; enteritis included).....	229	Hookworm disease:		Rocky Mountain spotted fever:	
Dysentery:		Georgia.....	832	District of Columbia.....	3
Georgia (amoebic).....	10	Hawaii Territory.....	14	Georgia.....	1
Georgia (bacillary).....	41	Oklahoma.....	5	Illinois.....	7
Georgia (unspecified).....	14	Impetigo contagiosa:		Montana.....	3
Hawaii Territory (amo- ebic).....	2	Alaska.....	1	North Carolina.....	14
Illinois (amoebic).....	5	Hawaii Territory.....	31	Ohio.....	3
Illinois (amoebic car- riers).....	23	Kansas.....	9	Utah.....	5
Illinois (bacillary).....	25	Montana.....	5	Virginia.....	12
Kansas (bacillary).....	2	Ohio.....	72	Scabies:	
Kentucky (amoebic).....	3	Oklahoma.....	6	Kansas.....	2
Kentucky (bacillary).....	111	Jaundice, infectious:		Oklahoma.....	2
Massachusetts (bacil- lary).....	16	Hawaii Territory.....	2	Septic sore throat:	
Montana (bacillary).....	5	Utah.....	1	Georgia.....	59
New Mexico (amoebic).....	2	Lead poisoning:		Hawaii Territory.....	1
New Mexico (bacil- lary).....	7	Ohio.....	6	Illinois.....	2
New Mexico (unspeci- fied).....	8	Leprosy:		Kansas.....	8
		Hawaii Territory.....	5	Kentucky.....	4
		Mumps:		Massachusetts.....	9
		Alaska.....	2	Montana.....	7
		Georgia.....	82	New Mexico.....	4
				North Carolina.....	8
				Ohio.....	12

Summary of monthly reports from States—Continued

July 1939—Continued

Septic sore throat—Con.	Cases	Tularaemia:	Cases	Undulant fever—Con.	Cases
Oklahoma.....	55	Georgia.....	2	Utah.....	2
Rhode Island.....	2	Illinois.....	1	Virginia.....	4
South Dakota.....	1	Kansas.....	10	Vincent's infection:	
Utah.....	2	Kentucky.....	1	Illinois.....	6
Virginia.....	83	Montana.....	1	Kansas.....	9
Tetanus:		Utah.....	9	North Dakota.....	2
Hawaii Territory.....	1	Virginia.....	8	Oklahoma.....	21
Illinois.....	3	Typhus fever:		Whooping cough:	
Kansas.....	2	Georgia.....	145	District of Columbia.....	157
Massachusetts.....	4	Hawaii Territory.....	4	Georgia.....	233
Ohio.....	2	North Carolina.....	31	Hawaii Territory.....	233
Virginia.....	1	Virginia.....	1	Illinois.....	1,487
Trachoma:		Undulant fever:		Kansas.....	71
Hawaii Territory.....	1	District of Columbia.....	1	Kentucky.....	164
Illinois.....	33	Georgia.....	15	Massachusetts.....	445
Kansas.....	1	Illinois.....	21	Montana.....	33
Kentucky.....	29	Kansas.....	12	New Mexico.....	82
Montana.....	21	Kentucky.....	1	North Carolina.....	825
New Mexico.....	8	Massachusetts.....	5	North Dakota.....	109
North Dakota.....	4	New Mexico.....	2	Ohio.....	1,116
Ohio.....	5	North Carolina.....	2	Oklahoma.....	19
Oklahoma.....	5	Ohio.....	6	Rhode Island.....	102
Utah.....	3	Oklahoma.....	107	South Dakota.....	12
Virginia.....	1	Rhode Island.....	4	Utah.....	231
Trichinosis:		South Dakota.....	3	Virginia.....	561
Massachusetts.....	1				
Ohio.....	1				

WEEKLY REPORTS FROM CITIES

City reports for week ended August 26, 1939

This table summarizes the reports received weekly from a selected list of 140 cities for the purpose of showing a cross section of the current urban incidence of the communicable diseases listed in the table.

State and city	Diph- theria cases	Influenza		Mea- sles cases	Pneu- monia deaths	Scar- let fever cases	Small- pox cases	Tuber- culosis deaths	Ty- phoid fever cases	Whoop- ing cough cases	Deaths, all causes
		Cases	Deaths								
Data for 90 cities:											
5-year average.....	73	35	11	200	282	249	3	338	87	1,223	-----
Current week ¹	73	25	10	128	206	196	1	306	53	1,017	-----
Maine:											
Portland.....	0	-----	0	0	2	0	0	0	0	8	20
New Hampshire:											
Concord.....	0	-----	0	0	0	0	0	0	0	0	2
Nashua.....	0	-----	0	0	0	0	0	0	0	0	7
Vermont:											
Barre.....	0	-----	0	0	0	0	0	0	0	0	-----
Burlington.....	0	-----	0	0	0	0	0	0	0	6	9
Rutland.....	0	-----	0	0	0	0	0	0	0	0	8
Massachusetts:											
Boston.....	2	-----	0	5	1	2	0	8	3	23	195
Fall River.....	0	-----	0	0	0	0	0	3	0	2	31
Springfield.....	0	-----	0	0	0	1	0	1	0	3	28
Worcester.....	0	-----	0	0	0	0	0	0	0	0	-----
Rhode Island:											
Pawtucket.....	0	-----	0	0	0	0	0	0	0	0	14
Providence.....	0	-----	0	11	3	1	0	1	0	24	45
Connecticut:											
Bridgeport.....	0	-----	0	4	0	0	0	0	0	0	26
Hartford.....	0	-----	0	0	1	0	0	0	0	26	36
New Haven.....	0	-----	0	6	2	0	0	0	1	19	28
New York:											
Buffalo.....	0	-----	0	0	2	3	0	4	0	17	118
New York.....	7	2	1	24	46	19	0	65	9	105	1,168
Rochester.....	0	-----	0	1	4	0	0	1	0	13	51
Syracuse.....	0	-----	0	0	0	0	0	0	0	42	46
New Jersey:											
Camden.....	0	-----	0	0	0	5	0	0	0	0	28
Newark.....	0	1	0	2	3	0	0	8	1	17	78
Trenton.....	0	1	0	0	2	1	0	2	0	2	34

¹ Figures for Worcester estimated; report not received.

City reports for week ended August 28, 1939—Continued

State and city	Diph- theria cases	Influenza		Meas- les cases	Pneu- monia deaths	Scar- let fever cases	Small- pox cases	Tuber- culosis deaths	Ty- phoid fever cases	Whoop- ing cough cases	Deaths, all causes
		Cases	Deaths								
Pennsylvania:											
Philadelphia.....	1	1	1	4	7	7	0	11	4	87	360
Pittsburgh.....	5	2	2	0	5	6	0	4	0	40	122
Reading.....	0		0	0	1	0	0	1	0	0	18
Scranton.....	0			0		1	0		0	0	
Ohio:											
Cincinnati.....	1		0	0	2	8	0	4	1	22	108
Cleveland.....	0	2	2	0	2	9	0	9	0	72	156
Columbus.....	2		0	0	3	2	0	4	0	9	68
Toledo.....	1		0	2	4	4	0	2	0	12	60
Indiana:											
Anderson.....	0		0	0	0	0	0	0	0	0	8
Fort Wayne.....	0		0	0	2	0	0	0	0	0	24
Indianapolis.....	1		1	1	6	2	0	5	0	32	108
Muncie.....	0		0	0	3	0	0	0	0	0	12
South Bend.....	0		0	0	2	0	0	0	0	0	16
Terre Haute.....	0		0	0	2	0	0	0	0	0	17
Illinois:											
Alton.....	0		0	0	0	0	0	0	0	0	6
Chicago.....	5	3	0	9	13	24	0	28	1	82	533
Elgin.....	0		0	0	0	0	0	0	0	11	4
Moline.....	0		0	0	0	0	0	0	0	4	8
Springfield.....	0		0	0	1	0	0	0	0	9	19
Michigan:											
Detroit.....	9		0	4	5	26	0	10	1	72	214
Flint.....	0		0	4	0	1	0	0	0	9	23
Grand Rapids.....	0		0	0	1	4	0	0	0	5	28
Wisconsin:											
Kenosha.....	0		0	0	0	8	0	0	0	0	6
Milwaukee.....	0		0	0	0	12	0	3	0	15	62
Racine.....	0		0	0	0	1	0	0	0	2	19
Superior.....	0		0	1	0	0	0	0	0	0	8
Minnesota:											
Duluth.....	0		0	3	0	0	0	0	0	0	22
Minneapolis.....	0		0	1	0	2	0	1	0	8	79
St. Paul.....	0		0	0	3	0	0	2	0	26	69
Iowa:											
Cedar Rapids.....	0			1		0	0		0	1	
Davenport.....	0		0	0	0	0	0	0	0	0	
Des Moines.....	1		0	0	0	4	2	0	0	0	21
Sioux City.....	0		0	0		0	0		0	3	
Waterloo.....	1			0		0	0		0	3	
Missouri:											
Kansas City.....	1		0	1	1	3	0	2	5	0	82
St. Joseph.....	0		0	0	0	0	0	0	0	0	25
St. Louis.....	1		0	0	1	4	0	4	4	19	155
North Dakota:											
Fargo.....	0		0	0	0	0	0	1	0	1	7
Grand Forks.....	0			0		0	0		0	1	
Minot.....	0		0	0	0	0	0	0	0	0	6
South Dakota:											
Aberdeen.....	0			0		0	0		0	0	
Sioux Falls.....	0		0	0	0	2	0	0	0	0	9
Nebraska:											
Lincoln.....	0		0	0	0	0	0	0	0	2	5
Omaha.....	2		0	0	1	0	0	0	0	2	38
Kansas:											
Lawrence.....	0			0		0	0		0	0	
Topeka.....	0		0	0	1	0	0	0	0	0	16
Wichita.....	0		0	0	1	0	0	0	0	1	22
Delaware:											
Wilmington.....	0		0	1	1	0	0	2	0	1	26
Maryland:											
Baltimore.....	0		0	0	5	3	0	14	0	54	181
Cumberland.....	0		0	0	0	0	0	0	0	0	10
Frederick.....	0		0	0	0	0	0	1	0	0	8
Dist. of Col.:											
Washington.....	2	1	1	2	4	5	0	13	1	1	161
Virginia:											
Lynchburg.....	0		0	0	0	0	0	1	2	34	8
Richmond.....	0		0	1	1	0	0	2	2	0	43
Roanoke.....	0		0	2	2	0	0	0	1	0	16
West Virginia:											
Charleston.....	0		0	0	0	0	0	0	1	0	11
Huntington.....	0			0		1	0		0	0	
Wheeling.....	0		0	1	0	0	0	0	0	1	

City reports for week ended August 26, 1939—Continued

State and city	Diph- theria cases	Influenza		Meas- les cases	Pneu- monia deaths	Scar- let fever cases	Small- pox cases	Tuber- culosis deaths	Ty- phoid fever cases	Whoop- ing cough cases	Deaths, all causes
		Cases	Deaths								
North Carolina:											
Gastonia.....	1			0		0	0		0	4	
Raleigh.....	5		0	0	0	0	0	0	1	5	8
Wilmington.....	1		0	0	0	0	0	0	0	0	10
Winston-Salem.....	1		0	0	0	1	0	2	0	0	15
South Carolina:											
Charleston.....	1	3	0	0	0	0	0	1	0	0	15
Florence.....	0		0	0	1	0	0	0	0	0	8
Greenville.....	0		0	0	0	0	0	0	0	0	12
Georgia:											
Atlanta.....	2	3	0	0	2	3	0	7	1	4	67
Brunswick.....	0		0	0	1	0	0	0	0	0	2
Savannah.....	0		0	1	0	0	0	1	1	7	28
Florida:											
Miami.....	2		0	1	4	0	0	0	0	0	33
Tampa.....	0		0	0	1	0	0	0	1	0	15
Kentucky:											
Ashland.....	0		0	0	0	0	0	0	0	0	4
Covington.....	2		0	0	0	0	0	1	0	0	11
Lexington.....	0		0	0	0	2	0	0	0	4	21
Louisville.....	1	3	0	1	2	3	0	2	0	24	45
Tennessee:											
Knoxville.....	0		0	0	0	1	0	1	0	2	30
Memphis.....	0		0	0	0	1	0	1	0	13	58
Nashville.....	2		0	0	0	1	0	1	0	5	40
Alabama:											
Birmingham.....	1		0	0	1	0	0	7	3	2	69
Mobile.....	2		0	0	0	1	0	1	0	0	24
Montgomery.....	0			0		0	0		0	0	
Arkansas:											
Fort Smith.....	0			0		0	0		0	0	
Little Rock.....	0	1	0	0	5	0	0	5	0	2	
Louisiana:											
Lake Charles.....	1		0	0	1	0	0	1	0	0	10
New Orleans.....	2	3	1	0	10	0	0	7	1	0	127
Shreveport.....	0		0	0	4	0	0	2	3	0	50
Oklahoma:											
Oklahoma City.....	0		0	0	1	0	0	1	0	0	28
Tulsa.....	0			0		1	0		0	0	
Texas:											
Dallas.....	2		0	2	1	1	0	0	1	3	50
Fort Worth.....	0		0	0	3	0	0	2	0	0	20
Galveston.....	0		0	0	1	0	0	0	0	0	12
Houston.....	2		0	0	1	2	0	6	0	0	91
San Antonio.....	0		0	0	5	0	0	10	0	0	58
Montana:											
Billings.....	0		0	0	0	0	0	0	0	0	5
Great Falls.....	0		0	1	1	3	0	0	0	0	15
Helena.....	0		0	0	0	0	0	0	0	1	3
Missoula.....	0		0	0	0	0	0	0	0	0	10
Idaho:											
Boise.....	0		0	0	0	0	0	0	0	3	5
Colorado:											
Colorado Springs.....	0		0	0	0	4	0	0	0	0	11
Denver.....	7		0	3	0	2	0	4	0	3	64
Pueblo.....	0		0	1	2	1	1	0	0	0	8
New Mexico:											
Albuquerque.....	0		0	0	0	0	0	0	0	0	11
Utah:											
Salt Lake City.....	0		0	4	3	6	0	0	1	27	27
Washington:											
Seattle.....	0		0	3	2	0	0	8	0	6	70
Spokane.....	0		0	1	3	3	0	0	0	0	31
Tacoma.....	0		0	3	0	0	0	0	0	2	33
Oregon:											
Portland.....	2		1	4	0	1	0	0	0	5	58
Salem.....	0			0		0	0		0	0	
California:											
Los Angeles.....	5	2	1	8	4	13	0	19	1	13	307
Sacramento.....	0		0	1	1	2	0	2	2	0	32
San Francisco.....	1		0	2	8	1	0	9	0	0	138

City reports for week ended August 26, 1939—Continued

State and city	Meningitis, meningococcus		Polio- mye- litis cases	State and city	Meningitis, meningococcus		Polio- mye- litis cases
	Cases	Deaths			Cases	Deaths	
Massachusetts:				North Dakota:			
Boston.....	0	1	1	Fargo.....	0	0	1
New York:				District of Columbia:			
Buffalo.....	0	0	11	Washington.....	0	0	1
New York.....	1	0	19	North Carolina:			
New Jersey:				Wilmington.....	0	0	1
Camden.....	0	0	6	South Carolina:			
Newark.....	0	0	1	Charleston.....	0	0	3
Pennsylvania:				Georgia:			
Philadelphia.....	0	0	14	Atlanta.....	0	1	0
Ohio:				Florida:			
Cincinnati.....	1	0	0	Tampa.....	0	0	1
Cleveland.....	0	0	3	Louisiana:			
Illinois:				Shreveport.....	0	2	0
Alton.....	0	0	2	Texas:			
Chicago.....	1	0	7	San Antonio.....	0	0	1
Michigan:				Colorado:			
Detroit.....	0	0	72	Denver.....	0	0	1
Grand Rapids.....	0	0	1	Washington:			
Wisconsin:				Seattle.....	0	0	1
Milwaukee.....	0	0	1	Spokane.....	0	0	1
Minnesota:				California:			
Minneapolis.....	0	0	9	Los Angeles.....	0	0	0
St. Paul.....	0	0	2	Sacramento.....	0	0	1
Missouri:							
Kansas City.....	0	0	1				

Encephalitis, epidemic or lethargic.—Cases: New York, 4; Trenton, 1; Springfield, Ill, 1; Louisville, 1; Sacramento, 1.

Pellagra.—Cases: Charleston, S. C., 1; Atlanta, 2; Louisville, 1.

Typhus fever.—Cases: New York, 1; Charleston, S. C., 3; Atlanta, 3; Savannah, 5; Miami, 1; Knoxville, 1; Birmingham, 1; Mobile, 2; Lake Charles, 1; Dallas, 1; Fort Worth, 2; Houston, 3. Deaths: Houston, 1.

FOREIGN REPORTS

CANADA

Provinces—Communicable diseases—Week ended July 29, 1939.—During the week ended July 29, 1939, cases of certain communicable diseases were reported by the Department of Pensions and National Health of Canada as follows:

Disease	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Cerebrospinal meningitis				1						1
Chickenpox		7		38	77	13	25	3	17	180
Diphtheria	2	3	2	22	1	3			1	34
Dysentery				1	1					2
Influenza		3			1					4
Lethargic encephalitis					1					1
Measles		22	1	140	145	41			6	355
Mumps				21	19	7			3	50
Pneumonia	1	4			1				1	7
Polio-myelitis					14		2			16
Scarlet fever	8	2	4	71	46	5	1	5	2	144
Tuberculosis	3	5	9	86	36	60				199
Typhoid and paratyphoid fever	1		4	15	4	1				25
Whooping cough		36	4	53	60	16	27	7	26	229

CUBA

Provinces—Notifiable diseases—4 weeks ended June 24, 1939.—During the 4 weeks ended June 24, 1939, cases of certain notifiable diseases were reported in the Provinces of Cuba as follows:

Disease	Pinar del Rio	Habana	Matanzas	Santa Clara	Camaguey	Oriente	Total
Cancer				5		9	14
Chickenpox		1		1		3	5
Diphtheria	3	12	3	1		1	20
Hookworm disease		114				5	119
Leprosy						1	1
Malaria	10	8		14	4	17	53
Measles		1		2			3
Polio-myelitis		1					1
Scarlet fever		1					1
Tuberculosis	14	66	28	115	6	67	297
Typhoid fever	40	62	25	47	15	34	223
Whooping cough				3			3

SCOTLAND

Vital statistics—Second quarter 1939.—Following are vital statistics for Scotland for the second quarter of 1939:

	Num- ber	Rate per 1,000 pop- ulation		Num- ber	Rate per 1,000 pop- ulation
Marriages.....	9,957	8.0	Deaths from—Continued.		
Births.....	23,615	18.9	Influenza.....	95	
Deaths.....	15,671	12.5	Lethargic encephalitis.....	30	
Deaths under 1 year of age.....	1,442	1.61	Measles.....	3	
Deaths from—			Nephritis, acute and chronic.....	471	
Appendicitis.....	96		Pneumonia (all forms).....	639	0.51
Cancer.....	2,095	1.68	Polio-myelitis.....	1	
Cerebral hemorrhage.....	1,653		Puerperal sepsis.....	21	
Cerebrospinal fever.....	9		Scarlet fever.....	12	
Cirrhosis of the liver.....	42		Senility.....	675	
Diabetes mellitus.....	190		Sulicide.....	125	
Diarrhea and enteritis (un- der 2 years).....	137		Syphilis.....	21	
Diphtheria.....	79		Tuberculosis (all forms).....	943	.75
Dysentery.....	8		Typhoid fever.....	3	
Heart disease.....	3,815		Whooping cough.....	108	

¹ Per 1,000 live births.

REPORTS OF CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER RECEIVED DURING THE CURRENT WEEK

NOTE.—A cumulative table giving current information regarding the world prevalence of quarantinable diseases for a six-month period appeared in the PUBLIC HEALTH REPORTS of August 25, 1939, pages 1573-1585. A similar cumulative table will appear in future issues of the PUBLIC HEALTH REPORTS for the last Friday of each month.

Plague

India—Rangoon.—During the week ended August 26, 1939, 1 fatal case of plague was reported in Rangoon, India.

Smallpox

Iran—Teheran.—During the week ended July 29, 1939, 6 deaths from smallpox were reported in Teheran, Iran.

Mexico.—For the period May 1 to June 30, 1939, the following provisional report of deaths from smallpox was received: Aguascalientes State, 3; Chihuahua State, 5; Coahuila State, 2; Guanajuato State, 246; Guerrero State, 3; Hidalgo State, 13; Jalisco State, 4; Mexico, D. F., 4; Mexico State, 146; Michoacan State, 137; Morelos State, 9; Nayarit State, 2; Oaxaca State, 1; Puebla State, 20; Queretaro State, 34; San Luis Potosi State, 22; Sinaloa State, 7; Zacatecas State, 27. For the month of June 1939, smallpox was reported in certain cities as follows: Colima, Colima State, 1 case; Mexico, D. F., 5 cases, 1 death; Monterrey, Nuevo Leon State, 1 death; San Luis Potosi, San Luis Potosi State, 8 cases, 5 deaths.

Venezuela.—During the period July 16-31, 1939, 1 case of smallpox was reported in Caracas, D. F., and 1 case in Cumarebo, Venezuela.

Typhus Fever

Mexico.—For the period May 1 to June 30, 1939, the following provisional report of deaths from typhus fever, by States, was received: Aguascalientes, 4; Chihuahua, 1; Coahuila, 2; Durango, 2; Federal District, 5; Guanajuato, 7; Guerrero, 2; Hidalgo, 15; Jalisco, 3; Mexico, 21; Michoacan, 10; Oaxaca, 22; Puebla, 24; Queretaro, 4; San Luis Potosi, 2; Sonora, 2; Tabasco, 1; Tlaxcala, 2; Vera Cruz, 3; Zacatecas, 17. For the month of June 1939, typhus fever was reported, by cities, as follows: Mexico, D. F., 27 cases, 11 deaths; Saltillo, Coahuila State, 8 cases, 1 death; San Luis Potosi, San Luis Potosi State, 1 case.

Yellow Fever

Brazil.—Yellow fever has been reported in Brazil as follows: Parintins, Amazonas State, 1 death on July 13; Tauri, Para State, 1 death on July 11.

Nigeria—Ilorin.—On August 24, 1939, 1 suspected case of yellow fever was reported in Ilorin, Nigeria.

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